HYGEIA

THE HEALTH MAGAZINE

Published by the American Medical Association
535 North Dearborn Street, Chicago

VOLUME 5 JANUARY, 1927 NUMBER 1

A Healthful New Year.

WHO'S WHO IN THIS ISSUE

DR. MAHLON ASHFORD, a prominent eastern physician, discusses the causes and prevention of sinus disease. GEORGE H. DACY is a press representative in Washington, D. C. DR. GAYLORD W. GRAVES is an associate in diseases of children at Columbia University. LUCY L. W. WILSON was a visitor to the exhibition at Düsseldorf, Germany, this summer.

DR. FRANK HOWARD RICHARDSON is the author of "Parenthood and the Newer Psychology," reviewed in HYGEIA, and of other books on child training. RUTH MAXWELL PALMER writes from her own experiences as a physician's daughter. PHYLLIS BLANCHARD is connected with the Philadelphia Child Guidance Clinic.

LEWIS H. CARRIS is the managing director of the National Committee for the Prevention of Blindness. LOUIS RESNICK is assistant to the president of the American Museum of Safety. Both these men have had extensive association with industrial health work and vocational guidance. DR. C. C. YOUNG, forced to give up his profession because of illness, tells of the avocation and country in which he regained his health.

DR. L. D. HUBBARD continues her series on the mental patient, based on her experience at St. Elizabeth's Hospital, Washington, D. C. ARTHUR C. CROSS is connected with the bureau of community organization of the University of Colorado.

DR. W. W. KEEN is a renowned American surgeon and has for many years been a contributor to the *Saturday Evening Post*, the *Atlantic Monthly* and other periodicals. GRACE RYAN has been doing cooperative extension work in home economics. BLANCHE J. DEARBORN is a popular writer of children's stories.

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Contributions to HYGEIA *are considered, and, if accepted, paid for. Stamps for the return of unaccepted manuscripts should be enclosed. All communications should be addressed to* HYGEIA, *535 North Dearborn Street, Chicago, Illinois.*

E.B. 1-12-28

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Malet af L. Bonnat efter Bestilling af Brygger J.C. Jacobsen.

L. Pasteur

HEROES OF MEDICINE

X. Louis Pasteur

(See Page 41)

This Modern Sinus Trouble

What Causes It? How to Avoid It?

By

MAHLON ASHFORD

WHENEVER one boards a public conveyance nowadays it may be with confident expectation of overhearing an enlightening conversation concerning sinus disease. Rare indeed is this confidence misplaced either on the event or on the interesting information that the subject evokes.

Two or three decades past, sinus disease was unknown, as such, to the public. Today but casual mention is given the occurrence even in one's immediate household. "Sorry I can't lunch with you today," or "Afraid I'll fail your foursome this afternoon; you know John has to be operated on at 2 for his sinus." The details follow.

One wonders where all this sinus trouble came from and what it really may be. Some say its prevalence is an aftermath of the World War; some say it is the doctor's new fad; and some satirically declare that what with the high cost of living, there are not enough appendix operations to keep all the doctors prosperous.

Take great care of yourself after an attack of sinus disease.

But while they have their jest at the expense of the physician, few have not had sufficient personal experience with sinus trouble to realize the actuality of the condition and to ponder on its serious and extensive spread during this generation. Much is yet to be discovered concerning the diseases of the bony sinuses of the head, but the medical sciences have advanced their knowledge of this malady so rapidly that the general interest in this puzzling subject may be satisfied by a clear and reasonably accurate description.

The sinuses are bone cavities in the skull and are lined with a living membrane, delicate in structure and ultimately continuous with the mucous membrane of the nose and throat. In one way or another the special senses are in intimate relationship with the head sinuses, and for this reason one or more of these senses is frequently affected when sinusitis develops.

Five pairs of sinuses will be discussed here. Above each eyebrow there is a more or less prominent ridge, termed the superciliary ridge. This is the protuberance that is popularly supposed to indicate mental development. Those who are so fortunate as to possess a marked expression of this anatomic landmark are apt to pride themselves on this Napoleonic feature. As a matter of fact, it is in reality the outer wall of the frontal sinuses, a cavity filled not with gray matter but with air. These frontal cavities are not present in the newly born and develop like the brain through the years of immaturity. A thin wall of bone separates them from the brain behind and the eye below. Through a minute opening in the floor of each is a canal into the nose.

It is difficult to picture the location of the ethmoidal sinuses, or labyrinths, as they are now so well termed. Each lies in a space between the eye socket and the forward attic of the nasal passage. The ethmoidal sinuses have a cellular structure much iike a honeycomb, each cell being separated from its neighbors and and from surrounding structures by the thinnest imaginable wall. This ethmoidal labyrinth communicates with the frontal, sphenoidal and maxillary sinuses and with the nasal cavity. Communication with these cavities, proximity to the brain and eye, delicate lining membrane and

cellular structure unite to render the ethmoidal sinuses peculiarly difficult to wrest from bacterial occupancy once infection is established.

Just back of each nasal attic lies a sphenoidal sinus. This sinus has an opening into the nasal cavity so situated that complete drainage can be effected only when the owner assumes the usual posture of a quadruped. Its intimate relationship with the brain, the optic nerve, vital vessels and other structures and its direct communication with the nasal cavity and other sinuses render it like its next door neighbor, the ethmoidal, a frequent abode of serious infectious mischief. The three pairs of sinuses described may be visualized as a honeycomb structure extending backward between the eye and the nasal attic and separated from the brain by the shelf of bone on which that organ rests.

On either side of the nose and squarely below the eye is the antrum, or maxillary sinus. It also has an opening into the nasal cavity and is separated from the mouth by its floor, which helps to form the hard palate, or roof of the mouth. Thus the roots of the forward grinders and the canine, or eye, teeth are directly below this sinus. When these teeth are abscessed they may discharge into it or infect it.

The remaining sinus is the mastoid, which is located just behind the ear and is separated from the brain above and from the delicate organ of hearing in front by a thin wall of bone. Inflammation of the middle ear often involves this sinus. Such infections may proceed from the throat to the ear by a channel called the eustachian tube.

Stage Set for Trouble

It is manifest then that all of these sinuses have in common the following features: proximity to vital structures of the brain and special senses; direct communication with the respiratory tract and indirect communication with each other; delicate lining membranes; and minute openings for drainage, which are readily shut off when the membrane becomes inflamed. In short, they have everything necessary to start and continue serious trouble, once the bacterial invader penetrates their defenses. Small wonder that the specialists who treat these conditions are said to have found a plentiful and lasting harvest.

Clerks in food shops and waitresses pass along colds and other infections.

Nearly all sinus trouble originates with an infection, that is to say a bacterial invasion of the lining membrane. This infection is usually secondary to successful bacterial attack elsewhere, as for example of the nasal passages, the tonsils or teeth. The infection may travel to the sinus along the membrane from the nasal or throat passages or through the lymphatic or blood vessels, but this is immaterial to the patient.

Shun coughers and sneezers in crowded cars.

The first thing that happens is that the lining becomes congested or swollen, shutting off the natural outlet for discharge. Then, if the invader gets the upper hand, dead and dying body cells pile up forming that ugly white matter called pus. Usually by this time the person has definite and distressing symptoms, and he is fortunate if he consults a competent specialist, who will locate the trouble and evacuate the septic purulent matter from the sinus.

If the condition is untreated, the body cells may gain the mastery, the swelling of the membrane may subside and the mass of dead cells and bacteria may be discharged. If the cells of the lining membrane are defeated in this struggle, an abscess may form or the infection may spread to other sinuses or organs, may induce septicemia, or may gradually subside into a chronic localized process.

Why We Never Used to Hear of It

It is probable that until recently the majority of cases of sinus infection were unrecognized. Changes in the habits and living conditions of the nation are also responsible for the rise of sinus disease. Among these is the trend from rural to urban life, so that the latest census reports reveal the fact that the majority of the people of the United States now live in cities. In these cities what mighty hosts are massed together in the complicated association of modern life. Millions are crowded each hour in public conveyances, millions herded each night in motion picture and other amusement halls, millions fed daily in public eating places. A

generation ago this massing of human beings was scarcely 1 per cent of present day conditions. Is there any wonder then that there is widespread dissemination of these highly infectious diseases of the respiratory type?

For every hundred persons who acquire an infectious respiratory disease, such as influenza, a fraction will have a complicating sinus infection. In fact the opinion is growing that the major portion of persons who have one of these influenzas or grip colds also have at the same time some inflammation of one or more of the head sinuses. Fortunately, however, the patient usually overcomes this local sinus infection, as he does the constitutional disease. Those who do not overcome it join the vast army of sinus victims.

One of the many wilful polluters of swimming pools.

The symptoms and treatment of sinus disease may have only a melancholy interest to the public, but avoidance has real and practical value. I shall accordingly leave the dolorous story of symptoms and the difficult subject of treatment to the practitioner in a praiseworthy endeavor to escape both. From the point of view of preventive medicine the sinus diseases belong to the infectious respiratory group, of which the most infamous member is influenza. Sinusitis is usually the resultant, primarily or ultimately, of one of this respiratory group of infections. Sometimes sinusitis develops immediately following one of these infections; sometimes long afterward from a residual focus that may have established itself in the crypts of the tonsils, in the adenoid tissues of the respiratory tract or in the infected root of a tooth.

Manifestly then a person should take every reasonable precaution to avoid constitutional infections of this type, which so often bear numerous and unwelcome progeny. Should one be unsuccessful in this effort, he should treat such infections as serious affairs.

Avoiding Sinus Infections

Almost invariably these respiratory infections result from direct contact with infected persons or from contact with things that such persons have recently contaminated. During the season when influenza, grip or, in the common parlance, flowing colds are prevalent, one should be on the lookout for and should avoid direct contact with the sufferers. One should seek to avoid touching the intimate personal articles used by them. Of these, food, eating and drinking utensils and personally used articles will suggest themselves as especially to be avoided.

A cook or waiter in a public eating place or clerk in a confectionery or delicatessen, when suffering from one of these infections, may do incalculable harm to the general public. Not infrequently have I observed the dispenser of candies in a sweet shop filling the candy boxes of customers by hand and stopping from time to time to assuage with her handkerchief the flooding infectious discharge from an acute nasal infection. Of course this is not only disgusting, it is terribly wrong. Such conduct, which should be a criminal offense in view of the incalculable injury that will certainly result, proceeds from ignorance and lack of care or thought for others.

The education of the public will some day provide protection from such outrageous disregard of the general welfare. For the present, when there is personal handling of candies or other foods to be eaten without the sterilizing benefit of cooking, one will do well to consider the risk, particularly when the handlers are sneezing or sniffling over their task. I give this one example which any one may observe in the daily metropolitan life during the winter season when coughs and colds are epidemic. Although no rules can be provided to cover all of the various ways in which food and eating utensils become infected, refusal of service at the hands of manifestly infected cooks and table attendants is an excellent general rule. Speaking even more generally, it is of course clear that avoidance of infected persons and things in the extremely complex civilization of our congested cities can only be relative and will depend on individual judgment.

It Is Easy to Develop Phobias

Extreme consistency in such avoidance is not practicable and endeavor to practice it may develop phobias, which render a person a curse to himself and others. A certain doctor in whom this phobia had attained absurd proportions, having been left alone in a public room, remained there a prisoner to his fear of touching the door knobs.

Utter disregard of reasonable precautions represents the other extreme. The golden mean, so long ago extolled by Horace, should be the guide of rational beings in this as in other habits of life. During the prevalence of epidemics of influenza or other respiratory infections which afflict our cities each winter, the use of gloves in public conveyances and similar places appears rational. So, also, is careful scrubbing of the hands after exposure

and always before eating. Above all else is the consistent avoidance of persons who give evidence of the prevailing infection.

A fruitful source of the spread of these infections other than that of physical contact with infected people or things is through atmospheric transmission. The opinion of hygienists varies

So fearful of germs that he hesitates to touch the door knob.

as to the relative importance of this factor. Manifestly it is reasonable to believe that a person who has a severe, flowing respiratory infection may transmit this by coughing or sneezing in the immediate vicinity of others.

Crowded Halls Are Implicated

Just to what extent the air of a crowded hall becomes the vehicle of infection from one person to another is a relative and debatable matter. Many believe that the atmosphere only carries these contagions as a personal transmission from one to another as by the particles forcibly projected by cough or sneeze. If this is granted, the fact remains that children and susceptible persons will not entirely escape such personal exposure in crowded halls. For this reason prolonged assembly of these groups in ill-ventilated, overcrowded rooms is perilous, especially when a respiratory disease is prevalent.

Water is another medium for the conveyance of disease when numbers of persons bathe in swimming pools in which every possible precaution has not been taken for the protection of the bathers. Sinus specialists attribute a great deal of their practice to the iniquities of such places. It is not at all sufficient that the water entering these pools be free from infection or that the bathers soap and shower their bodies before entering the pool.

The contamination usually comes from the noses and throats of bathers who delight in hawking and spitting prodigiously into their bath. Just why, I cannot understand. No one would dream of contaminating his daily tub in this way, but in the swimming pool, into the waters of which every one dives, gurgles, spits and hawks, it is quite *de rigueur*. If the sinus specialists were wholly commercial, I am sure they would be the largest contributors to the subscription lists for these enterprises, but to their credit be it said that they never cease to proclaim the perils of improperly conducted pools.

Swimming pools can be rendered relatively safe places of amusement if suitable provision for their operation is made by competent hygienists, especially if the bathers can be educated to the point at which they cease wilful pollution of these giant common bathing tubs. Without doubt when this provision is maintained, the gain in general benefit to health and in the education in swimming offsets the relative peril inherent in any public swimming pool.

Fortunately for humanity there is another factor in the transmission of disease besides the contact of the infected with the noninfected. That factor is immunity. Were it not for the relative immunity of healthy persons to infection, the human race would no doubt have perished long since. Because of this factor a person is able to survive in spite of the exposures and the mortal risks he daily runs in the movies, the swimming pools, the restaurants, the crowded cars and corridors of our great cities.

But this blessed immunity is only relative. One man may possess immunity to an infection to which another may succumb, or a man may possess immunity to a particular culture of a certain organism when a more virulent type of the same will flatten him out. He may be immune to exposure at 9 of a sunny morning when possessed of a good breakfast and mind free from carking care, while the same exposure will overcome his natural resistance if the attack is made when he is tired, disheartened, worried, cold or famished. Clearly the moral is to keep the body fit and to avoid great mental or physical depression, which will reduce the inherent resistance of the body to infection.

Battle between Body Cells and Bacteria

Should efforts to escape a prevalent respiratory infection fail, what then may a person do to avoid the hateful brood of consequences that such diseases so often engender? In the first place, it is the part of wisdom to regard and to treat these infections as serious affairs from the start. Without question the majority of pneumonias, sinus infections and many other alarming involvements that develop as a result of exposure might be evaded were the person put to bed in suitable surroundings and with proper care at the onset of infection.

The analogy between modern military tactics in attack and the methods of a bacterial invasion

is strikingly close. In both cases the enemy makes a mass attack on the line of defense and, if a weak point is discovered, breaks through this line and establishes himself within the defenses. He proceeds to organize the seized position and, if the defender does a counter attack, to expel him by again advancing from his vantage point within the line of main defense. The contest is in fact a battle between the body cells and the invading bacteria. The host is by no means an unconcerned spectator. His life is at stake, because no man can tell to what extremity the bacterial enemy will go if he can overcome the defending elements of the body.

One would expect the body host to give the defending cells all the aid he can summon—rest, warmth, elimination of traitorous intestinal poisons and suitable nourishment; in short, aid and comfort. More often than not, no aid is given these brave defenders at the critical moment. On the contrary, quite often the host does everything he can to harass and impede them and to favor the enemy attack. Through his own ignorance or stupidity the patient succumbs to the attack and becomes ill.

Proper Care During Convalescence

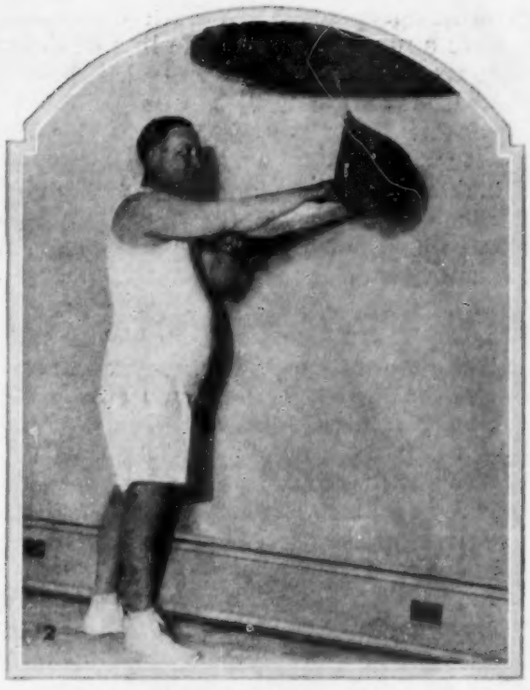
Passing over the period when this hypothetical patient is under his physician's care, we come to the stage of convalescence, when the patient is restive to resume his usual pursuits, although still manifestly below par. No doubt he still harbors in the mucous membrane of the upper respiratory passages, in the crypts of the tonsils or in one or more of the sinuses, virile germs of the infection that so recently laid him low. Evidently he is still in that state of physical and mental depression that lowers his general resistance and invites local operations by the still present enemy.

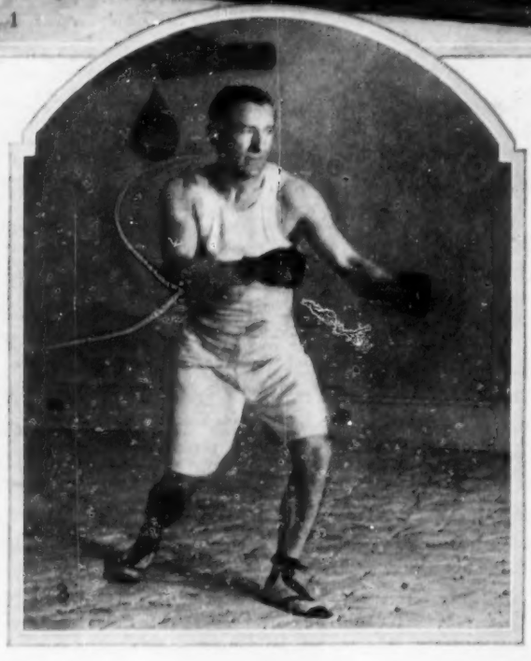
Therefore the convalescent should take great care of himself, avoiding fatigue, anxiety, cold and similar risks. Exposure to cold winds, especially exposure from driving in an open car, is a fairly certain way to change a diminishing and recessive inflammation of the sinuses into an active and progressive attack. This is an excellent period to remain under the doctor's guidance and to assume toward life the nonchalant attitude attributed to the mollusk.

Sinus Disease Well Worth Avoiding

Sinus disease is an experience well worth avoiding. To that end a person should exercise every reasonable precaution to keep away from other persons or from things recently infected with any of the so-called respiratory infectious diseases. He must seek to maintain the normal body resistance to infection by keeping the body fit, the mind equable, and the spirit optimistic. He must, when practicable, avoid depressants.

If a person succumbs to an infection he should place himself promptly under care and conditions favorable to treatment. During convalescence he should guard himself with unusual care and should make sure that he has eliminated local foci of infection and recovered the normal immunity to disease before he chances the exposures of former routine. These are the guides along the fairway of health.





1. At the rowing machine, Congressman Sydney C. Anderson of Minnesota. 2. Congressman Purnell, former champion pole vaulter and high jumper. 3. Congressman Fred C. Britten of Illinois, former amateur light-weight champion of the United States.

Congress at Play

EVERY once in so often members of Congress doff the togas of statesmanship and don sports clothes in order to enjoy recreation, relaxation, fresh air and amusement under smiling skies.

To avert the accumulation of surplus avoirdupois and to improve the physical well-being of its more than 600 members, Congress has gone in for conservative athletics and sports.

The underlying cause of increased congressional interest in outdoor and indoor sports is recent mortality statistics, which show that obituaries are more commonly written about congressmen than about any other class of men employed in sedentary work.

The dawn of interest of our national legislators in healthful exercise harkens back to the hectic days of the World War, when the late Walter Camp, one of the deans of American athletics, came to Washington to teach our national statesmen and cabinet members how to keep physically fit. Mr. Camp organized a sunrise exercise class composed of national capital luminaries. The class met three mornings a week at 5 o'clock. It was the most famous and extraordinary physical training group ever assembled. Simple calisthenics and setting up exercises put new snap and vigor into muscles that were growing old.

Wonderful changes were consummated in the contour and general geography of congressional physiques. Statesmen and government authorities who had not experienced real hunger for years began to develop healthy appetites. The flush of health colored pale faces. The scales showed that Congress was reducing its poundage. Senators and representatives performed more work than ever before and did not collapse under the strain of long hours and greatly increased duties. Executives who formerly had shambled along began to walk briskly. An invigorated and rejuvenated Congress tackled hard tasks and asked for more work.

Congress contracted the exercising habit. The practice continued in popularity even after the war was won. Outdoor sports occupied Congress' spare time during fair weather. Then came winter and it looked as if the physical conditioning would have to go into retirement until the following spring. Several physical culture enthusiasts in Congress proposed a congressional gymnasium. They can-

One of the major athletic events at Washington is the annual baseball game between Republicans and Democrats. Below is Representative Dan Reed of New York, who weighs 200 pounds and was one of the best football players and heavyweight wrestlers at Cornell University.

Why Our Federal Lawmakers No Longer Figure So Strongly in the Obituary Columns

By George H. Dacy

vassed the House and eventually won over several hundred statesmen to the gymnasium idea.

Enough money was raised by popular subscription among members of the lower house to purchase complete equipment for a model gymnasium and to hire an experienced instructor. Uncle Sam aided the enterprise by offering the use of an idle storeroom in the basement of the House office building for a gymnasium. A training school designed to develop the muscles and strength of congressmen and to put fat and diseases to flight thus came into being close to the shadow of the U. S. Capitol.

The congressional gymnasium has now been in service for more than six years. During the sessions of Congress when the Washington population of federal lawmakers is at its maximum, from forty to fifty well-known statesmen gather at the gym daily; there they play handball and volley ball, put on boxing gloves, engage in friendly scuffles on the wrestling mat and take part in calisthenic drills. Regular exercise has put new pluck and ginger into Congress. Representatives who only a few years ago were at low ebb physically are now almost as spry and active as collegians.

Congress, mobilized as it is from all parts of the country, drafts men from every walk, calling and station. Lawyers predominate, but the congressional directory, the official bible of statesmanship, shows that there are also glass blowers, blacksmiths, professional ball players, prizefighters, boilermakers, jockeys, traders, cowboys and Indian fighters. Many amateur and professional athletes—former champions in different sports—now receive their mail regularly at House of Representatives offices.

The Hon. R. A. Morin of Pennsylvania is a double-barreled champion. As father of ten children, he is the ranking papa of Congress while he is also the best athlete of 58 birthdays. Years ago, Mr. Morin was one of the fastest scullers in the world. He was on various occasions the leading adversary of Lew Scolls of Canada, who won the diamond sculls in England, a classic rowing event.

During his youth, Representative Morin was one of the best amateur boxers in the East. He also was a successful baseball player. For several seasons he was captain and second baseman of the Missoula, Mont., nine. Clark Griffith, owner of the Washington American League

team, pitched for Missoula in those days. Later, Mr. Morin organized the Montana state baseball league.

Today Morin keeps in good condition by regular exercise at the congressional gym. He is one of the best handball players around Washington and despite the fact that his sixtieth milestone is only two years away, he still can handle the boxing gloves adeptly for several rounds.

Each year the Republicans and Democrats in Congress organize nines and stage a baseball game. This contest is invariably an epoch in Washington's recreation schedule. Spectators throng to the games expecting to see baseball burlesque and diamond comedy. Instead, they watch bitterly fought contests. There are always enough former professional and college baseball players in Congress to place two good nines in the field. The old timers may be a little dim of eye and rusty of arm, but they have not forgotten the inside strategies of the great national game. The games are worth watching and attract large crowds.

Representative Charlie Carter of Oklahoma was once the "Ty" Cobb of the Texas league. He played with the Dallas and Fort Worth teams and was accounted one of the best players that ever signed a Dixie payroll. He is one of the first to report for spring practice when Washington politicians start training for their annual contest.

Congressman Mudd of Maryland ranks as the best catcher ever developed at Georgetown University, a college famous for record ball nines. Mudd refused opportunities to join major league ball teams in order to practice law and enter politics. He always responds to the battle call of the Republicans when Congress takes up baseball practice.

Royal C. Johnson of South Dakota, who once represented his state university on the baseball field, is another federal statesman that refused professional baseball contracts in order to engage in legal practice and politics. Congressman Bankhead was once a prominent athlete at the University of Alabama. Congressman John Garner was a baseball pitcher of prominence in his early days.

Choosing a Mythical Football Eleven

A mythical football eleven chosen from congressional halls would be a record-breaker. Congressman Daniel Reed of New York was one of the best football players developed at Cornell University. For fifteen years after being granted his sheepskin, Mr. Reed returned to Cornell to coach the eleven. He was also the champion wrestler and hammer thrower at his alma mater during his undergraduate days. "Dan" Reed believes in the doctrine of good physical condition for all able-bodied men. He practices what he preaches. He is a regular visitor at the gymnasium run by Congress.

Congressman Hayden of Arizona played on one of Stanford's outstanding football teams. Messrs. Bankhead of Alabama and Johnson of South Dakota aided their state universities to win many closely contested gridiron matches. Representatives Burkness of North Dakota, McCormick of Montana, Parish of Texas, Clarke and Gould of New York and McArthur of Oregon are other former pigskin booters.

During the past few years, Congress has taken up golf. Many national lawmakers formed the habit of playing prebreakfast golf several times a week. Representatives Oliver, Strong, Hoch, Vestal, Bland, Lamon, Hayden, Taylor, Underhill, Chalmers, Ellis and many others, as well as Senators Jones, Kellogg, Hale and McKinley, were regulars on the links. At 5 o'clock in the morning, when it was still murky over head and moist under foot, these golfing devotees started their rounds at Washington's public and private links. Chanticleer thus came to serve as the dependable alarm clock for congressional golfers.

The Congressional Country Club

The sports proclivities of Congress are now depicted admirably by the Congressional Country Club, one of the finest homing haunts of outdoor amusements in the East. This private club roster contains the names of leading representatives, senators, cabinet members and government executives. Herbert Hoover is the president. It is the only country club in the United States that has the president of the United States and two ex-presidents as members. Two golf courses, a battery of tennis courts, a baseball field, a mammoth natatorium, a polo field and a completely equipped gymnasium provide ample opportunity for pleasurable exercise.

The health statistics of our national Congress are the best ever registered as a result of the federal legislators' donning sports clothes frequently and engaging in conservative play. All work and no play not only makes Jack a dullard, but it also makes him fat, sluggish, irascible and discontented. Our federal lawmakers have found out that the straight highway to health leads to tennis courts, golf courses, swimming pools and gymnasiums. It is a road that they now travel regularly, a pathway to proficiency and progress from which they will not depart.

The Baby's Book of Rights

By Gaylord W. Graves

Baby

Doctor

Mother

Father

Landlord

Nurse

The Baby's Rights

A BABY is entitled to be born. It is not the prerogative of his parents, incompetently advised, to determine differently. Whether his name shall be "Finis" or not is another matter.

He is entitled to breast milk unless his mother has tuberculosis. Other contraindications to nursing are recognized as local ordinances, but not as general laws.

During his first fortnight a baby is entitled to lose and regain 11 per cent of his birth weight, to sleep during the day and to cry at night, to have more or less indigestion and to be accused of colic when he is only hungry. According to civil law, these rights have precedence over those of adult neighbors.

For three hours uninterruptedly a baby is entitled to use his alimentary tract for digestion and absorption and not as a full-time admission office.

If it becomes apparent that his natural food must be supplemented by what nature designed for a calf, the baby is entitled to a weekly visit from a physician until one month of age, a visit biweekly until the fourth month and a monthly examination thereafter throughout infancy. When very ill, a baby may be entitled to two doctors and perhaps a good nurse.

A baby is entitled to develop pneumonia in the usual way rather than by the inhalation of a shower of stearate of zinc from his powder can.

The baby is entitled to sunshine that does not traverse window glass, or if the sunlight is not available, to cod liver oil throughout his first two years. If he cannot have fruit juice he is entitled to develop scurvy.

It is his right to be vaccinated against smallpox in his early months and to be immunized against diphtheria in the last quarter of his first year.

When he begins to walk his feet have rights.

The Mother's Rights

A MOTHER is entitled to the possession of her child. She may even confer upon it her own care. If she prefers efficient cooperation to ordinary help, her mental condition does not call for psychanalysis.

She is entitled to an adequate stay in bed following the arrival of the baby. Later she is entitled to a medical examination when she has backache.

She is entitled to be spared the nursing woman's diet and to eat like other human beings.

Logically, she is entitled to smoke if her husband smokes; but there is to date no positive evidence that cigaret smoking increases a failing breast milk supply or that ashes help the baby's eyes.

When nursing must be terminated, the mother is entitled to make the termination gradual.

Mothers are the rightful administrators of baby's budgets.

THE DOCTOR'S RIGHTS

THE doctor is entitled to outbreaks of confidence on the part of the baby's household and to cooperation to a degree permitting ingress into the kitchen as well as the front foyer.

If he has misgivings about his ability to render "absent treatment," he is entitled to act accordingly. When he renders actual service by telephone, he is entitled to remuneration.

A physician may have his own assistant and, within reasonable limits (which leave unto chiropractors and other cultists the things that they think are their own), his own consultant and nurse.

At the present writing a doctor is entitled to limit his ordinary house calls by an automobile radius rather than an aeroplane radius.

A doctor is entitled to legal tender in amount commensurate with the demands entailed by the standard of living in his community. Contrary to popular belief, his fee is due when his services are rendered.

The doctor is entitled to see his own family at intervals, to three irregular meals daily and to sleep some place other than over the operating table or the windshield.

THE FATHER'S RIGHTS

THE father is entitled to support his family and to talk about the baby. With reference to the care of the baby, the father may have rights but they are never considered.

The father is entitled to two meals and a lunch daily but no sleep.

THE NURSE'S RIGHTS

THE nurse is entitled to be naturally, but on no account artificially, prepossessing.

She is entitled to optimism, charity, experience, reticence of the presidential type and brains.

THE LANDLORD'S RIGHTS

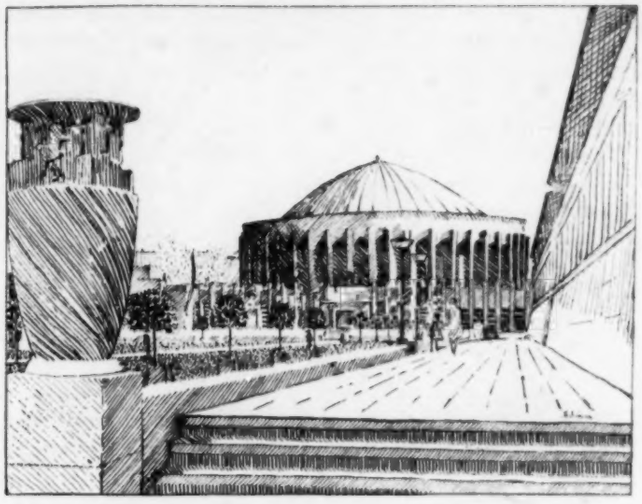
THE landlord is privileged to provide for both dogs and babies.

The less said about the landlord's pecuniary rights the better.

JONES FAMILY GENEALOGY

Children of
JOHN and MARY PAUL
1750—1768

1. *Jared*
2. *Hope B.*
3. *Obadiah*
4. *Patience*
5. *Ira*
6. *Obedience*
7. *Cromwell*
8. *Gloria*
9. *Samson*
10. *Clarinda*
11. *Ezekiel*
12. *Daniel*
13. *FINIS!*



Close to the Rhine bridge situated on mounting terraces, rises the monumental Rhein-Halle, which also serves as a planetarium.

The Gesolei in Düsseldorf

By Lucy L. W. Wilson

EVERYWHERE in Germany are displayed posters of various sizes dominated by the black silhouette of a vigorous youth dashing forward with powerful strides, while below him a huge serpent parallels his movements.

A strange word is Gesolei: *ge* for *Gesundheitspflege* (health); *so* for *soziale Fürsorge* (social welfare); and *lei* for *Leibesübung* (sport). As a matter of fact, the Gesolei exposition actually includes the latest developments in every branch of medical work and research, public health, chemical products, hygiene and sanitation in all their branches, social welfare, public and private charity and philanthropy of all kinds and every form of physical training and sport.

A Reborn Germany

Better than anything else in Germany, except perhaps the newer movements in education, the Gesolei has revealed to the Germans their new-born soul. They have become twice born, and this is the reality behind Stresemann's words: "There is something that far transcends in importance all material considerations; that is the soul of nations themselves. . . . He will serve humanity best who is firmly rooted in the faith of his own people and develops their moral and intellectual gifts to the highest significance, thus overstepping his own national boundaries and serving the whole of mankind, as has been done by the great men of all nations whose names are written in history."

How the Exposition Came About

Just before the war, Düsseldorf began to erect a building to celebrate the centennial (1815-1915) of the union of the Rhine provinces with Prussia. The keynote of the exposition, largely industrial, was to have been "One Hundred Years of German Art and Culture." Instead, there intervened not only war and revolution and influenza and inflation, but also passive resistance to the military occupation of the Rhine.

Ten years later, with the hope of the evacuation of the French army, the city fathers decided to extend an invitation to the German Society of Scientists and Physicians, about to meet in Innsbruck, to hold its biennial meeting on the Rhine, in Düsseldorf. In the discussion that followed on how worthily to receive the scientists, the idea of an exposition was reborn.

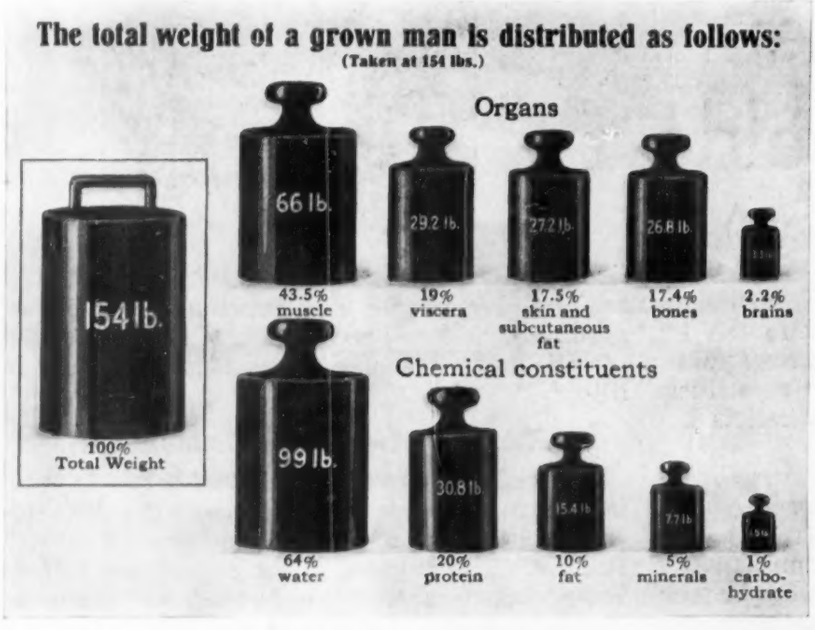
The original plan was now unthinkable. But to try to express concretely, in its historical setting, not only the lessons of the last decade but also the objectives of the next was a different story. To reach the new heights of the new era, not only economically and politically but spirit-

ually as well, new guiding stars were followed. These were health and social welfare.

"This is the greatest duty of the state," said they. "These are the final determinants of the fate of nations, and on the knees of her youth is the future of Germany."

With these dominating ideas, under the leadership of the German Museum of Hygiene, Dresden, a plan for the Gesolei was ready in early October of the same year, 1924. At once the government of Prussia, most of the other free states and groups of people and of specialists of all kinds signified their enthusiasm and their desire to cooperate.

From this auspicious beginning until the actual opening, however, there were not only the pessimists but also intelligent doubters, who questioned whether it was right in this time of great economic difficulties to begin such an undertaking. Would it not be wiser, they said, to use time, skill and money in the actual furtherance of sport and health and social welfare? Time has answered these question quite conclusively. The exposition furnished worthwhile work to 15,000 unemployed persons, and has successfully passed on its great message to millions.



Even the charts are dramatic.

With great swiftness, the beautiful permanent buildings were erected and in less than two years from its inception the whole exposition, stretching for 2 compact and lovely miles from the Rhine bridge along the river, was in perfect order. For the first time in history, a great social idea, scientifically and artistically expressed, so that he who runs may read, has integrated a national exposition. It says:

"A new democracy has been born, based on health and social opportunity for every one. A culture that wanders far from this road is only a sham culture. Serve and love German youth; hate privilege and war and poverty and ill health and disease."

The Buildings

Four of the buildings are permanent; one, the exposition building, was erected in 1902, the other three were built for the occasion. These are the festival hall, which is a planetarium as well; the new art gallery; and the Rhein-Terrasse, an immense restaurant, commanding fine views, with a large wine, beer and coffee section, all on lovely terraces. Inside of the Rhein-Terrasse is a large, magnificently decorated banquet hall as well as many smaller rooms. All these buildings are beautiful for two reasons: Each was born out of a need of the people, and each was created to serve its purpose by a really great architect, Prof. Wilhelm Kreis. One can easily believe that he deserves his other reputation of being the best dancer in Düsseldorf, for the buildings in their setting express not only an exquisite sense of rhythm but also complete intellectual and emotional control of physical materials. Under his master hand even the landscape became plastic.

Düsseldorf had long needed a festival hall for her numerous congresses. She had outgrown her art galleries and needed more room to assemble existing art treasures scattered over the city and for temporary exhibitions as well. Naively, she had long desired a great restaurant with an outlook over the beloved river that flows through her city, even dearer to her now than before French and Belgian flags had dominated its bridge.

The festival hall is one of the most beautiful modern buildings in Germany. It is large and proud like the Pantheon but infinitely more complex, more subtle. Twice daily, by means of a Zeiss planetarium, its dome within is converted into a marvelous changing representation of the starry heavens. In two minutes, instead of twenty-four hours, the circle of the zodiac makes its complete revolution. A lecture gives one the latest developments in astronomical fact and theory and the feeling of a mighty universe, of which one is fortunate to be even a tiny part. Outside, from numerous and beautiful terraces, one can see the river, the city, the exposition. The festival hall dominates a formal and beautiful court of honor, with gay flower gardens, a fine fountain and statuary, bounded on its long sides by the art gallery and the exhibition palace.

In 70 Jahren ißt der Mensch 1400 mal sein Gewicht
2000 Kg. Fett
6000 Brote a 2 Kg.
4000 Kg. Fleisch
3 Ochsen a 700 Kg. 4 Kälber a 100 Kg
8 Schweine a 150 Kg.
4 Hammel a 75 Kg.
300 Hühner, 75 Gänse, 100 Tauben
2000 Fische
3000 Sardinen, Flundern, Bücklinge, Heringe etc.
180 Zentner Kartoffel
6000 Kg. Gemüse
7000 Kg. Obst
6000 lt. Milch
15000 lt. Bier
12000 lt. Kaffee
500 Kg. Salz
5000 Eier
4000 Kg. Zucker
1000 Kg. Käse
40000 Zigarren
10000 lt. Wasser
Kuchen, Schokolade, Bonbons, Wein, Liköre etc.

In seventy years a man eats 1,400 times his weight, says one of the charts, which lists just what a person does consume in his lifetime.

To the right of the court of honor, in a lovely setting of woodland, are groups of interesting and much visited buildings. These are the nurslings' home, the forest school and playground, the house of youth, a youths' hostel, a restaurant serving no alcohol, a rest room for women, and milk and mineral water stands.

In the nurslings' home, in glass enclosed rooms, twelve babies of various ages constantly demonstrate the best modern practice in the upbringing of small children. In the forest school, twenty children, rather sketchily dressed, but gay and happy, tell the story of the right way to educate the anemic, the nervous and the tuberculous.

The house of youth, with a model playroom, a room for "crawlers," a kindergarten, a picture room, a reading room, a theater, a bathroom, washroom, dayroom, and sleeping rooms, as well as wall exhibits which show what is being done for handicapped children in homes, schools and classes, demonstrates what must be done by the mother, or the social worker, or the teacher, or the combination, in order that all children may come into their rightful inheritance.

Youths' Hostel Will Be Transported

The youths' hostel, after serving the purpose here of demonstrating what such a hostel should be in order efficiently to serve the vast army of *Wandervögel,* will be reerected in Eifel. It has single beds for sixteen girls in a dormitory, near three washrooms. There are also a well equipped kitchen and a large dayroom. On the floor above are several rooms giving the models, plans, maps and statistics of many other hostels from old castles on the Rhine (Bingen and Stahlneck) to other reconstructed and new houses. Last year the youth of Germany used these hostels to the extent of more than a million such accommodations nightly, at a cost of about 12 cents a day.

From the Rhein-Terrasse restaurant, reached either from the Rhine promenade or through the court of honor, begins a third group of buildings. A powerful cement fire tower, 150 feet high, built in forty days, a monument to German technic, dominates the architecture of this group of much smaller tower-crowned buildings, which, viewed either from the river or from the Liliput railroad, suggest the Orient in both color and form.

The Hall of Woman

Next comes a series of large exhibition halls holding interesting and valuable exhibitions of the art and the science of home-building in its widest sense, including the latest inventions in time-saving and labor-saving devices; gas, water, electricity; city and street planning; and the ways in which even large cities give their people light, air and playgrounds for their children.

Appropriately enough, the last hall of this section, Woman, holds a series of artistic models showing women in the past, together with graphic statistics showing her work as wife and mother, physician, technical assistant, nurse, teacher, gardener, etc.

Then comes a hall devoted to foods and two halls of sports. A section for clothing includes the life histories of wool, silk, cotton; healthful and unhealthful clothing; the hygiene of the shoe, and scientific beauty care.

Here, also, are buildings devoted to the care of the sick, including a whole house devoted to the physician, graphically presenting the story of medicine from the oath of Hippocrates, through the Old Testament, Homer and the Niebelungenlied to the latest discoveries and discoverers. X-rays and other rays occupy another hall as do German baths and cures.

Again in an open space is another fine restaurant with a view of the Rhine, a great fountain, music and fireworks at night.

The last part of the promenade is devoted to pleasure, including not only the usual moving picture houses, mountain railroads, and shooting galleries but also swimming and sun baths and other real delights.

High Lights of the Exposition

Perhaps the most conspicuous, the most thoroughly scientific, the most modern, the most artistic, and yet the most universally appealing unit of the whole exposition is that called Man. It was created and installed by the Dresden Museum of Hygiene. The idea materialized for the international exposition of hygiene in Dresden in 1911. At that time, the magnificent technic by which the details of human anatomy were demonstrated through the device called the transparent man aroused much enthusiasm. There was no other opportunity for its exhibition until 1921. In the last five years, however, it has been shown in Holland, Denmark, Sweden, Danzig, Austria and Switzerland, each time with new and finer demonstration apparatus, wall pictures, models, life size groups and lighting devices.

These improvements are not only in order to keep the exhibits up to date with the changes and the newest developments of science, not only to express more perfectly the deep underlying thought—that is, what the laws of organic life mean to the individual and to the social group—but also for the sake of making it more interesting to the man on the street and to youth.

The story of nourishment and of the secretion of the blind glands and the transparent skull are entirely new, created especially for Düsseldorf.

"Man" fills not only the large permanent building, formerly adequate to an entire exhibition, but is continued in the many temporary exhibition buildings farther along the Rhine. Digestion and nourishment, for example, occupy three rooms in the permanent building and also two temporary halls.

In the permanent building, at least a whole room is devoted to each of the following: the sense organs and their hygiene, the skull, blood, circulation, breathing, muscles, bones, public health, occupational diseases, contagious diseases, tropical health, army and marine hygiene and Jewish hygiene. An exhibit of posters from the HYGEIA contest and copies of HYGEIA and other American health magazines are on display.

How long and arduous has been the roadway to medical knowledge is shown in the main building in a diorama of fourteen great pictures (life size models) telling the history of the last 2,000 years in the Rhineland, from the care of the sick in pre-Roman times down to the most modern equipment now used.

In Germany, at any rate, if not in Tennessee and Texas, the time has long since passed when any one naively believes that the history of mankind is a matter of a few thousand years. So in close connection with the relatively modern history of the last 2,000 years is a series of pictures (again life size models) showing, each in its proper natural setting, hunters of the old and new Stone ages, and agriculturists of the ancient lake dwelling period. Very graphically, too, are exhibited the laws of heredity, the laws of eugenics, the influence of air and climate, and the interdependence of nature and man.

The group of buildings, already described, devoted to the education and care of children contains the most interesting of the social welfare exhibits. In the permanent hall are large rooms devoted to public welfare, the Red Cross, and the work of Catholic schools and missions.

Sport is shown historically and scientifically, in art, in school and in everyday life, including light and heavy gymnastics, athletics, fencing, ball games, bicycling, mountaineering, gardening, winter and water sports, riding, life saving and aeroplaning.

Drama Present in All Exhibits

In all the exhibits, art sets the pace, with the objective of reaching the people. Even the charts are dramatic. Many are the clever devices employed to point the moral. Three yards of gauze are stretched out to show how far a sneeze can carry germs. A single yard tells the life history of a cough. A huge vat holds a dark red fluid, the amount of blood pumped by the heart in a single half hour. The model telling vividly the vital statistics of the German republic is always surrounded by an admiring group which watches an endless procession of a bridal pair, a baby, a coffin—the first every seventy-two seconds, the second every twenty-four seconds, and the last every forty seconds.

But let no one suppose that only the general public can learn from the Gesolei. On the contrary, professional people, business people of every type, and children can learn from it not only the boundaries of present knowledge and needs, but also new aims and new methods in investigation, in technic and in organizing ideals.

First of a Series

The first thing to discover is, What is a nervous child?

The Nervous Child

By

Frank Howard Richardson

ONE of the remarks most commonly heard by the physician when a mother comes to him with her child and his problems is, "Doctor, you know my child is nervous!" The fact that this statement is always made within the hearing of the greatly interested and highly gratified youngster, together with the touch of pride in the mother's voice, inclines the doctor to answer rather bruskly and impatiently that there is no such thing as a nervous child.

"Nervousness," the physician is quite likely to remark, "is nothing but the result of improper handling of a child and his problems by adults who have not taken the pains to find out how they can render him the service that he is entitled to receive from them; and this nervousness will disappear just as soon as he is given the proper environment."

Now there is a certain sound basis of truth in what the exasperated physician says. He is certainly justified in saying what he does, if only to impress more forcibly on an uninformed mother how much the mental health of her child is dependent on herself and on the home environment that she creates. If she can be brought to the point at which she realizes this, and if she will attempt to bring about the necessary changes in the atmosphere of the home, many of the problems that have been oppressing and obsessing her will cease to exist. She will herself have eliminated her child's nervousness without any further help from the doctor.

Motor Type of Nervousness

In a larger, truer sense, however, there is undoubtedly a nervous type, as compared with a calm, placid type, in childhood. The older psychologists and pedagogues recognized this when they arbitrarily divided children into the two classes, motor and sensory. Every one who has anything to do with children will at once recognize the distinction implied, and can at once properly place in one of these two classes any child with whom he is acquainted.

The motor type is active, never sitting still a moment, "mischievous," as the old folks used to call him, at the head of the class as teacher's pet, or at the foot as her chief abomination, according to the personality of the teacher herself and her likes and dislikes. The sensory type, on the other hand, is bookish, sedentary, of little trouble to teacher or parent, quite apt to be called a good child simply and solely because he intrudes himself so little on the time and attention of the teacher. Such goodness, of course, though frequently praised and rewarded as such, is nothing more than the most negative of attributes. It is a goodness that contains elements of great danger, as well as of certain deprivation, to the child himself.

Such nervousness as is represented by this motor type is a valuable attribute to the child himself, however troublesome it may be to the adults with whom he comes in contact. As mothers are proverbially willing to be convinced that their children are not so bad as other folks say they are, a simple explanation is sometimes all that is needed to save such a situation.

Unduly Sensitive to Influence

There is another sense, however, in which the word nervousness can fairly be used, though it ought never to be employed in the hearing of the child. This is the sense that implies that a child becomes overwrought more easily than seems natural, that his endurance is not such as might be expected. Using the term in this sense, we at once realize that there are many children who are inordinately responsive to influences that seem to leave their less sensitive brothers and sisters immune (*seem* is used here advisedly, for it will be shown later that much permanent and grave damage is done to chil-

dren, which at the time does not *seem* to be a hurt at all). Just why these more sensitive children are what they are will be subject for discussion later in this series.

In the hustling, bustling age in which we live, there are certain children whose "nerves seem to be near the surface," as some observers have expressed it. Just how much of this condition is due to heredity; just how much may be a constitutional peculiarity with which environment has little to do; just how much of it may have been produced by the situation in which fate has placed the child and by the personalities of the immediate relatives who constitute his world for the early years of his life, may never be fully determined. The fact remains, however, that there are children who seem to be much more sensitive to the character of the influences surrounding them than we elders would like them to be, had we been consulted about it beforehand.

Without considering whether this condition is inborn or not, certain things must be noted about these children. As infants, they seem oversensitive to light, to noises and to the presence of others than mother and nurse. Their crying seems unduly prolonged; they make much more fuss about getting on with their nursing than it seems to us that they should; it takes them longer to drop off to sleep than there seems any good reason for. As they grow older, they begin to show difficulties in adjusting their lives to the world about them. They fight and struggle with mother and nurse; brothers and sisters are expected to go more than two thirds of the way with them, and outside children do not like to play with them. If they go to visit other children, they are not apt to be invited to come again; other children who come to visit them do not want to return.

The Thin-Skinned Child

As they reach school age, they find difficulty in accustoming themselves to the routine of the classroom. They feel that the teachers discriminate against them; that other children no brighter or better than they are placed ahead of them; that they are not given marks as high as their real ability entitles them to. They take to themselves slights that were not intended; they feel that they are perhaps not so well treated by fortune as they might have been; they are a little ashamed of their parents, and are not satisfied with their clothing, their place in the social scale, their opportunities.

In short, their skins are thinner than it seems to us adults that they ought to be, and we wonder just how we are to deal with them, in order that those of us whose duty it is to watch over their pilgrimage from infancy to manhood and womanhood may do as much to help them and as little to hinder them as possible.

Whenever a child exhibits any of these characteristics or traits, he is showing the need for constructive help. Whether, as some of us feel, the crying infant is as a rule a child in need of more or better food, or whether he is unduly sensitive owing to his heredity; whether the quarrelsome runabout child is naturally and desirably self-assertive or whether he is an insufferable little pig who needs squelching for his own as well as for his playmates' sake; whether the schoolboy who with shining morning face creeps unwillingly to school does so because he is a normal boy and hence hates school or because school as at present constituted is an insufferable bore, there is difference of opinion; in any event the child that manifests any of these traits stands in need of help.

Teaching Him the "Business of Living"

We adults who love him and are interested in him are the only ones who can give help to him, and even then only if we know how to offer it. For the purposes of this series, the child that finds himself in any such difficult situation is a nervous child. We, as author and reader, are going to do our best to see what he does while in this situation, why he does it, and how we can help him to do something better and to do the same things in some better way than he is now employing.

Bernard Glueck has coined a useful phrase, which crystallizes a truth that all parents ought to remember. He tells us that all that is required for the management of most cases of nervousness in children is "a better understanding of the business of living."

Coming in This Series

Here are some of the problems of childhood that Dr. Richardson will discuss in HYGEIA *for 1927:*

1. *Thumb-sucking.*
2. *Nail-biting.*
3. *Fears (phobias).*
4. *Tics (habit spasms).*
5. *Speech disturbances.*
6. *Compulsions.*
7. *Regressions.*
8. *Convulsions.*
9. *Antisocial conduct (lying, stealing and running away).*

In the February issue, this eminent child psychologist will continue his preliminary discussion of "What Is a Nervous Child?" before starting on his treatment of the foregoing nine titles.

What wisdom that any of us could acquire could surpass the priceless worth of such an understanding? For this business of living is one in which we must all engage, whether we will or not—the nervous child, along with the rest of us. Mere tyro as he is at this business that none of us ever learns any too well, until at last the final liquidation is made, he surely needs an efficiency expert to help him conduct his affairs if he is to avoid bankruptcy.

What the Child Must Accomplish

The same writer has well stated the prime factors involved in what he has called "the task of growing up," so complicated and difficult under the best and most favorable circumstances!

All of us could testify to its discouragements and heartaches, were our memories less prone to gloss over its unhappy experiences and to glorify the "happy days of childhood" with a reminiscent glow that was strangely lacking while we were living through them. He gives five main points with which the child has to concern himself, unconsciously of course for the most part. The very fact that he cannot be expected to recognize them makes his task still harder of accomplishment.

1. The child's state of dependence.
2. His adaptation to the problem of authority.
3. The necessity for (a) a progressive recognition of the world of reality, and (b) at the same time a diminution of his fantasy life and flight from reality; that is to say, his unwillingness to recognize things as cold, hard facts and to deal with them as such.
4. His family relationships and the way they affect him.
5. The progressive integration of his personality.

Most of us would hesitate to drive these five rampant steeds in harness at once; and yet we are hasty and impatient when a child has difficulty in keeping them all smoothly in hand.

Glueck goes so far as to say frankly that "the problems one is called on to solve are those of rather ordinary difficulties of adaptation to the demands of daily life . . . very refractory to treatment, (but) which are nevertheless quite understandable in terms of ordinary 'household troubles,' requiring none of the complexity of terminology for a statement of the issue." The doctor and the parent must be satisfied with this "household diagnosis" rather than with some high sounding combination of medical terms, if they are to get very far in helping to cure the child of his nervousness.

Parents Must Be on the Alert

For "nervousness" will probably be the first sign that he gives us of his inability to cope successfully with this job of driving this veritable Phaeton's chariot, with its unruly steeds. It is for parents to be on the alert to detect this first inability and to help him when it appears. At this time a little help can be worth so much to him. Later, all the effort in the world, on the parents' part, may be of no assistance whatever.

The task of growing up.

Why I Would *not* Marry a Physician

By

Ruth Maxwell Palmer

When the baby got the croup, Father was sure to be 16 miles away.

THERE is one profession into which I vowed I would never marry. That is the profession of medicine. A thousand times during my girlhood I shouted this resolution vehemently. Why did I have a special prejudice against a doctor as a husband? Because my father was a doctor. Being the child of a shoemaker is nothing compared to being a physician's child. The former may have to go without shoes, but a physician's child does without a doctor when she is sick and without a father always.

Old Grace and the Grasshopper

When we, my brothers and I, were small, Father practiced in a country town and had a 16 mile range. The ranging was done on horseback. Just as sure as the baby got the croup, Father was sure to be 16 miles away attending some one else's baby. So it was Mother who prepared the vapor or gave a dose of coal oil on sugar. When I had the earache, it was Mother who syringed my ear. When we had the measles, there was an epidemic of it, so Father had time merely to glance at us and then to hurry on to his patients. Mother often remarked that the worse she needed Father the farther away he was.

When we four children were old enough to go to school, we moved to a large town; and a short time thereafter Father acquired his first automobile. It was a small chain driven roadster, painted red. We called it the grasshopper, both from its size and from the smoothness of its gait. It went up the hills at a terrific rate compared to good old Grace, who was considered a fine horse. With the increased speed Father's practice increased so that we saw less of him than ever.

However, being sick without Father was not so bad, because Mother was a most efficient person in the sickroom. It was never having Father at home that we resented. Once in a while he would sit down to read us a story, but I do not believe he ever finished one. Some one had indigestion and he had to go. Sometimes a patient who was not very sick would call up and want Father to go to the office on Sunday just at our dinner time. We would probably have guests and Father would want to stay, but the patient would not be put off so Father would grab his medicine case and off he'd go. Mother played host and carved the chicken, and I strengthened my resolve to marry a man with another calling.

The Birthday Dinner

I remember one time we had a birthday dinner for Father. It was an elegant dinner, with turkey, cake with candles, the preacher and several other prominent citizens. We children had helped all day to get the house in order and the "trimmin's" fixed for the big event. Dinner was to be at 6 o'clock. At 5, Father

telephoned to say that he had a call to make but could easily be home by 6. The guests arrived and everything was ready except lighting the candles. We waited and waited and waited. At 7 mother suggested that we begin eating, for he would surely come soon. But he didn't. We had nearly finished dinner before he called to say that a child was terribly burned and he could not possibly leave for two hours longer. So our party progressed without the guest of honor.

Wanted at the Box Office

When my father went to church, as he did occasionally, the chances were that an usher would touch him on the shoulder with a summons to leave. When he went to a movie he was always fearful of seeing "Dr. Blank wanted at the box office," flashed on the screen just as the picture grew exciting. Once he had tickets for a championship football game, and we were all going. One of his patients chose to have her baby that afternoon. We went alone.

Often for a week at a time we never saw Father at all. He left before we got up in the morning and came home after we were in bed, but we would hear him coming and going many times in the night.

Finally he got so he never came home to lunch, preferring to snatch a dish of beans or a glass of buttermilk at a restaurant to save time. He grew so accustomed to staying in the office that even though he had a little leisure he chose to stay there to read or to have a nap. Mother was often lonely despite the fact that we children were pretty well grown by that time. But as life was such in a doctor's family she had to grin and bear it as she bore so many other disagreeable things.

We would hear him coming and going many times in the night.

Another unpleasant feature in a doctor's home is the telephone. How we all hated to answer it!

One Christmas day it fell to my lot to answer the phone, for the office girl being on holiday the calls came to the house. Father had rushed off early to a confinement case, not even opening his gifts. The phone rang seventy-seven times that day. There were not seventy-seven patients, only sixteen, but Father was tied up on that confinement case and the whole sixteen were in a hurry, calling every few minutes to see if he had come in. One was a mother whose baby had swallowed an open safety pin; the pin later had to be cut from the baby's stomach. Another was a father with two children sick with pneumonia. A frightened voice said a woman had been stabbed. Another said a man was choking on a piece of turkey. One man, crying like a baby, said his wife had dropped dead or had fainted, he did not know which.

Getting a Night's Sleep

So it went all Christmas day. Was there any joy in the world? We did not hear of any. Instead of being happy the whole household felt the burden of others' sorrow.

The Christmas that I have mentioned was only one day of many such. Day in and day out, night in and night out, for years and years my mother answered the telephone, listened to tales of suffering and spent hours and hours trying to catch Father before he left a certain neighborhood to save the necessity for his return to the same neighborhood for another professional call.

Then there is the matter of a night's sleep. Statistics show that more babies are born during the day, but to the doctor they nearly all seem to come at night. Even though he may have had no more than two hours' sleep the night before, he has to go, perhaps just as he prepares to fall into bed. He may get back at midnight, be in bed for thirty minutes and have to go again.

People thought Father was wealthy, but his success was not financial. Early in his career, when he quit the little country town, he left $18,000 in outstanding bills. It is still o u t s t a n d i n g. After twenty years in the larger town he was making $18,000 a year. Pretty good for a physician, is it not? I said making, not collecting, and collecting is a horse of another color! Father did not collect half that much, partly because he was a poor collector, as are most physicians of his type, and partly because a surprising number of people put the doctor off until the last. Father could point out babies of eighteen to twenty years of age who had not been paid for. Believe me, the doctor's family resents it when babies are not paid for. Their advent is not sudden and unexpected. There is rarely even a lame excuse for failure to pay for maternity work

But people thought we were rich long before Father's earnings reached $18,000. We had a nice home, paid for in small instalments, and we children went to college. We dressed well enough, though not in the latest style. We looked prosperous because we had to. A doctor has to be presentable, have a good car and make a good impression or he would seldom have a patient.

Trying to Look Prosperous

So we catered to that peculiar psychology of the public in a small way. We looked prosperous, thanks to Mother. The public did not know that, aside from some play togs, my three small brothers had only one suit of clothes each, made from Father's old ones. The suits served them week days for school and, after sponging and pressing on Saturday night, for church next day. Mother was a genius with her needle and she made her clothes and mine. Sometimes when collections were very slim we were compelled to buy groceries on credit, much to Mother's distress. In later years money, more or less spasmodically, came in, so that we did not have to skimp and save so much, but we never had over a comfortable living.

Let a man pay out, as Father did, $2,500 a year for an office, $2,000 for drugs, $1,000 for a car, besides all the expenses an ordinary family of six has, and see how much is left of eight or nine thousand a year. And yet many folk begrudge the doctor his fee. It's exorbitant, $3 for thirty minutes and a few pills! They do not think how long it took the doctor to prepare himself to spend that thirty minutes and to give those pills. They do not think of the nineteen years, seven years after he leaves high school, during which he is studying a course so difficult that a vast number fail every year. A doctor has to "know his stuff." If a lawyer is asked a question that he does not know, he fails to lose prestige if he says, "I'll look it up and let you know tomorrow." But let a doctor say that when he is asked a question, and his patient's confidence is gone. Let a lawyer make a mistake, it will likely mean only a loss of money; let a doctor make a mistake, it may mean a life.

Once my father was called to an extremely poor home in which there was apparently nothing to eat. When he left he pulled a $2 bill from his pocket and said, "Here, get something to eat."

The next day he saw one of the children and he asked, "What did you buy with the money I gave you?"

"Oh, we got a good doctor with that," the little fellow piped out.

The Family Takes a Vow

Father thought that was a good joke on him. It also shows that some doctors will not go without pay, and I am glad of it. It is the doctor's fault that people do not pay. Of course there are some really unfortunate persons who cannot pay, but they are few. There are many doctors, like my father, who go and ask no questions, and who rarely send bills. They are not fair to themselves or to their families. They go through life strangers to their children. They are truly unselfish, pouring out their lives for others, receiving little pay and little thanks. They and their families see so much of the seamy side of life that it is no wonder my mother used to say, as she looked at my three little brothers bubbling over with happiness: "Boys, I hope you won't become doctors. It is such a hard life."

They didn't; that is, one of them didn't. He is an industrial nurse.

It is no wonder that I kept my vow never to marry a doctor—until I was 27 years old. But he isn't a general practitioner.

The High School Age

By

Phyllis Blanchard

THE high school age has its own characteristics and its own problems. Such novelists as Booth Tarkington have described these characteristics in semi-humorous vein. We have all laughed over "Seventeen" and "Alice Adams," but we have felt the pathos of these stories, too. The stage, in plays like "Merton of the Movies" and "Young Woodley," has given us dramatic representations of youthful lives. Psychologists discuss the high school age under the more imposing title of adolescence, and have something to tell us of the dynamic forces struggling for expression in these boys and girls.

Most parents, in speaking of their adolescent sons and daughters, are inclined to comment adversely on the ways of modern youth. The boys, they say, want to play in jazz orchestras, to drive fast automobiles, to wear Oxford bags and bright colored sweaters. The girls want to dance all night, to go joy riding and to wear as little clothing as possible.

New Speed Due to Mechanical Age

Granted that these forms of self-expression are different from those of our own adolescence, is this due to anything inherent in the make-up of the boys and girls themselves or is it the logical outcome of the age in which they live? A generation ago, father probably went a more sedate pace with his horse and buggy, but perhaps this was because mechanical means of transportation had not then been perfected. We must remember that the automobile is an ordinary conveyance in this day and age. We might even suspect that the boys of the previous generation had trained old Dobbin to be driven with one hand, just as much as the automobile has been manipulated left handedly by modern youths.

What is actually the case is that those who now are parents sought for their amusements those things that were available in their own high school days and that the present generation, obeying similar impulses, merely finds the more striking devices of a mechanical age ready for its appropriation. Perhaps the modern youth who first coined the expression "So's your old man!" was precociously aware of these facts.

Youth's Quest for Thrills

In all seriousness, however, it must be recognized that this broader scope for adventure may mean also a greater number of pitfalls for the unwary feet of youth. The high school boy and girl crave excitement, activity, thrills. They long for the freedom that must so soon be theirs as they leave the high school behind and enter into higher education or vocations. Many of them will soon be away from home and parents, dependent on their own judgment and decisions.

The high school age is a golden one in which to prepare them gradually for the changes that must inevitably come. It is difficult for parents to see in those who have so long been children the signs of young manhood and womanhood. Never have their sons and daughters needed sympathy and tactful guidance more than they do at this time, yet it is probably more difficult than ever before for parents to give them what they need. This is partly because we are prone to hark back to the good old days, to recall half-memories of our own youth, instead of entering fully into the present in the lives of our children.

It is also because at this age the boy or girl is beginning to desire a greater independence, to question parental authority, to oppose the sanction of his own age group to the opinions of the older generation.

Therefore two things are incumbent on parents—to learn all they can of the world as it appears through the eyes of their children, so that they may meet them on their own ground, and to grant the adolescent the privilege of making decisions for himself whenever no irremediable injury seems likely to follow. After all, it should be possible for differences of opinion to be discussed between older and younger people in the same calm and objective fashion that is employed between persons of a homogeneous age group.

To teachers, as well as to parents, the high school age offers a vivid opportunity. New subjects are presented in the classroom, and literature or science may reveal a whole new world to youthful minds. The adolescent is prone to hero-worship and idols may be found in books or in the person of a skilful teacher. The influences that are possible here are infinite and often of long duration. The approval of some schoolroom god or goddess may lift a victim of the oft-quoted inferiority complex out of the depths of discouragement and start him on the road to high achievements.

Whatever are its faults, there is undeniably an enchantment about the high school age that may never come again. Surely, it is worth while for us to be lenient with youthful follies, and to encourage the misty dreams and ambitions that are ready for revelation to the person who is understanding and sincere. Many of the day-dreams and aspirations will fade out and never find fulfilment, to be sure, but even in this age of mental tests and vocational guidance we cannot always predict which cases of youthful brilliance are only temporary flares and which are the steady fires of genius. Perhaps it somewhat depends on us and on the intelligence with which we minister to youthful needs what the outcome will be.

Adequate Ventilation Provides *for* Sound Sleep

WITH the beginning of cold weather the problem of making homes and working places comfortably warm arises.

In January we require our buildings to be heated to a temperature that averages that of July. In other words, we artificially raise the temperature indoors about 50 degrees. This provides warmth but not necessarily comfort. Particularly during the night is the discomfort noticed in the form of dryness of nose and throat.

Health poster by Elaine Potter of Fargo, N. D.

In summer during the night Nature seems to adjust atmospheric conditions in two ways that promote rest. The air is usually cooler and not so dry as during the day. The coolness and softness are favorable to relaxation of the body tissues and to sleep. To approximate this condition in winter is not easy, for the problem of raising the temperature indoors is a simple one as compared with that of giving such air ample water vapor, observes Dr. Paul W. Goldsbury in *Heating and Ventilating Magazine.*

In summer as the air is heated by the sun it picks up moisture and dew from the lakes and streams, foliage and vegetation. In winter indoors, the artificially heated air has no such surfaces from which to take up moisture. The air must take this moisture where it can be found, from walls, woodwork, furniture, furnishings and from the delicate tissues of human occupants.

For short periods of time such dry air may do little or no harm. It may even stimulate persons working indoors by the contrast to the chill, damp air outside. The varied activities of the day make one insensible to many discomforts, and there is no desire for rest or relaxation. At night, with no lessening of the artificial heat and without the many movements and distractions of the day, the irritations to the skin and mucous membranes caused by the dry air become acute.

Wholesome sleep demands a reduction of whatever may be irritating, including unnecessary abstraction of moisture from the body tissues. To approximate Nature's arrangement of temperature, an outdoor sleeping chamber can be arranged. The head of the bed should be placed between open windows, avoiding, of course, strong drafts. Then, by reducing materially the heat in the rest of the room, satisfactory conditions for sleep may be obtained.

EYES FOR THE JOB

By Louis Resnick and Lewis H. Carris

IF ONE were to say to the average employer today, "One out of every two employees in your shops, offices and stores cannot see clearly what he is doing," the employer would be astounded, or he would simply refuse to believe the statement unless it was supported by the records of examinations by physicians or oculists. Yet this is not only true, but extremely conservative, except for the comparatively few establishments in which the eyes of every employee have been examined and those of subnormal vision corrected by the use of glasses or by medical or surgical treatment.

Some of the larger and more progressive industries have in recent year begun to examine the eyes of all employees and of all applicants for employment. This is what some of them found:

Properly selected goggles and the willingness to wear them have saved this man's eyes sixteen times.

At the plants of the William Cramp & Sons Ship and Engine Building Company, out of 6,142 men examined, 3,111, or 51 per cent, had defective vision; of this number, 2,991 had defective vision in both eyes, and only 120 were affected in but one eye.

Dr. Harry S. Reynolds of the service department of Cheney Brothers, silk manufacturers, reports that in the examination of 1,000 applicants for employment in a silk mill by Snellen and Jaeger tests 52 per cent were found to have deficient eyesight. The following table shows the comparative incidence of visual defects at different ages found among silk mill workers:

VISION EXAMINATION OF EMPLOYMENT APPLICANTS BY SNELLEN AND JAEGER TESTS

Abnormal vision in	52.0	per cent	of	1,000	total				
"	44.1	"	"	840	under 40 years of age				
"	43.3	"	"	519	males under 40 years of age				
"	45.1	"	"	321	females under 40 years of age				
"	33.8	"	"	272	applicants in 2d decade				
"	43.8	"	"	374	"	"	3d	"	
"	59.2	"	"	191	"	"	4th	"	
"	87.3	"	"	79	"	"	5th	"	
"	100.0	"	"	60	"	"	6th	"	
"	100.0	"	"	20	"	"	7th	"	
"	100.0	"	"	1	applicant	"	8th	"	

At the plant of the Bausch & Lomb Optical Company, 50 per cent of all new employees were found, on examination, to have some eye defect. "Needless to say," writes Max Paser of this company, "every person employed by this company has his eyes carefully corrected before being put to work."

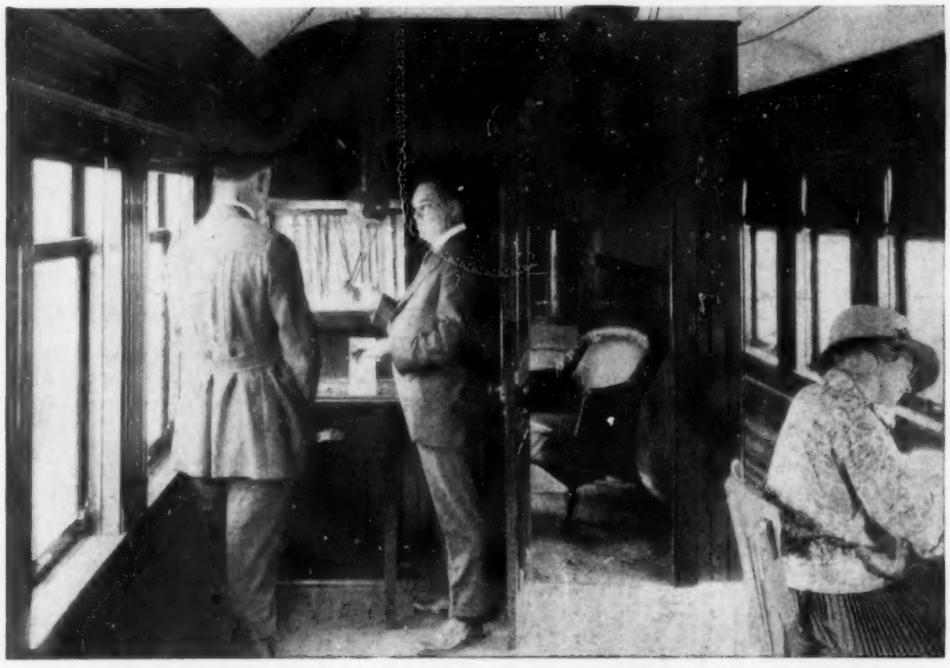
The surprising experiences of a car building plant in the Middle West, which recently began to examine the eyes of the men in its employ, are indicative of the conditions that undoubtedly exist today in hundreds of other plants which have not considered it necessary to look into the state of their workmen's eyes.

This company found on its payroll 125 men each having a glass eye, most of whom had been passed by the employment department through failure to recognize the artificial eye. In one case it was found that a workman had so little sight that he had been brought to the gate by a fellow workman each day for years and had been doing his work by sense of touch rather than by sight. Of 377 workmen whose eyes were examined during two months in 1923 at this same plant, 205, or 54 per cent, needed glasses. During the first six months of 1923 more than 2,600 of the 4,700 men in this plant were given goggles with corrective or individually prescribed lenses.

Only 50 per Cent Eye Efficiency

It should be noted that these four companies, in different sections of the country, in greatly divergent industries, conducting their investigations independently and at different times, found almost identical conditions; namely, that half of their workmen had seriously defective and uncorrected vision. In each of these plants one worker out of every two could not see clearly what he was doing, where he was going, or what was passing before him.

The extent of substandard vision among industrial employees reported by Dr. Earle B. Fowler in his chapter on eye conservation in the American Engineering Council's report on waste in industry is even more marked, as shown in the following table, which was pre-



One large railroad company examines the eyes of each of its employees once every two years by means of this eye clinic car, in charge of an experienced oculist. The car is sent over the lines of the road regularly, stopping at each point.

pared by collating the figures given in Dr. Fowler's report:

	Number Examined	Number with Defective Vision	Per Cent Defective
Garment workers	2,906	2,163	75
Miscellaneous factory and commercial house workers	10,000	5,000	50
Typewriter plant workers....	675	392	58
Paper-box factory workers..	3,000	2,340	78
	16,581	10,195 (average)	61

The investigations on which Dr. Fowler's report is based indicate that the percentage of defective vision is highest among the very workers that have the greatest need of good vision. For example, in the plants of the Whiting Davis Company, in which a great deal of close fine work is done, the eyes of all employees were examined, and it was found that only 8.4 per cent of the employes did not need glasses; 8.3 per cent wore glasses that were satisfactory, and 83.3 per cent needed glasses.

Nature Supplies Outdoor Eyes

While the discovery of such conditions within their plants naturally comes as a shock to most industrial executives, they are conditions easily accounted for. Nature supplies long-range outdoor eyes which, until comparatively recent years, were seldom called on for close application. Modern life demands that the eyes be used more intensely and for longer periods.

A further explanation of the prevalence of defective vision to such a marked degree is the fact that many foreigners—at least during their first few years in this country—are afraid to go to an eye clinic or hospital for an examination of their eyes, and instead yield to the temptation to buy spectacles from the 10-cent store, the push-cart or the itinerant pedler.

Another factor in this situation that must be taken into account is the traditional dislike for glasses by a certain type of workman which feels that wearing glasses is an indication of senility.

In the evolution of our modern industrial world the greatest attention was given first to the improvement of machines, then to the conservation of raw materials and the utilization of by-products; it is now being directed to the development of greater efficiency in the industrial worker. Ever since the termination of the World War labor costs have been increased far out of proportion to the increased cost of machinery, raw materials or capital investment, with the result that employers generally are giving more serious attention than ever before to the many factors that determine or influence the productivity of the individual worker. It is in this latter phase of industrial management that we are brought face to face with the important part that vision plays in industrial efficiency.

Every Employer's Problem

There is no longer any need to speculate on such questions as: the extent to which defective vision exists among men and women in industrial occupations; the extent to which defective vision interferes with efficiency; or the extent to which poor vision increases the frequency and the severity of industrial accidents.

All of these questions have been answered for industry as a whole by investigations in scores of plants of diversified operations. They are questions that should receive the serious consideration of every employer.

The employer who is not convinced through the experience of others of the necessity of discovering every case of defective vision among his employees and insisting on its correction owes it to himself, his business associates, and his workmen to seek in his own plant the answers to the aforementioned questions.

A barber shop in Bokhara, Central Asia, visited by Dr. Young in one of his three trips into Central Asia to import Karakul sheep.

Karakul Sheep Breeding

A Health Producing Texas Avocation

By C. C. Young

WHEN Roosevelt returned from the Spanish-American war I was a boy 18 years old, who had just come to the United States from Russia, running away from a school with a too rigorous discipline. It was with considerable difficulty that I was able to make myself understood in those days. When Roosevelt crossed the state of North Dakota, as the running mate of the late William McKinley, I was permitted to accompany him and managed to induce him to speak to a group of German Russians at Dickinson, N. D., and other parts west of Bismark.

While on this trip I explained to Mr. Roosevelt that one of my relatives then lived in the Caucasus of Asia Minor, where he settled on account of his great interest in fur-bearing sheep, which later during the Russian revolution cost him his life. His attention was principally centered on the breed known as the Karakul fur bearing sheep, which produces Persian lamb fur, astrakhan, baby lamb, unborn lamb, broadtail and gray kimmer.

While the natives, the wild and treacherous Kurds of that particular section, were able to produce a pretty lamb fur obtained from the Karachaev and Osetin breeds, they could never produce lamb fur with tight, wormlike curls, except when they were able to cross with Karakul rams, which were occasionally supplied to them by Persians from northern Persia.

While still a boy my curiosity was aroused by the stories of hardship suffered by my relatives and friends in the quest of Karakul sheep. I related some of these experiences to Mr. Roosevelt, telling him that I hoped some day to accomplish the impossible and import some Karakul sheep from Bokhara to Bessarabia, European Russia (now a part of Roumania), and that in time I hoped to see this breed of sheep represented in the United States. Mr. Roosevelt seemed immensely pleased when I told him that I expected to become the owner of a ranch in the United States and that I would then, with his help, make an effort to import some of these wonderful animals.

Little did I realize that this would require expeditions that would cost thousands of dollars, besides special passports and numberless concessions, extremely difficult to obtain and for which I had to have the assistance of three presidents of the United States, the consent of the czar's leading ministers and that of the emir of Bokhara.

What proved to be the hardest obstacle was a U. S. federal law which prohibited the importation of live stock into the United States from Asia, and but for the intercession of Roosevelt and J. A. Tawney, when I landed in this country in 1908 with my first Karakuls, the entire flock would have been killed by our bureau of animal industry.

A Karakul lamb three days old. The fur quality of a Karakul depends on these typical, tight, wormlike curls.

Three years after, as a result of tests made by the bureau of animal industry, I was permitted to bring another flock to this country, only to find that a most costly expedition, which demanded some $50,000, had to be organized, in order to make a third importation for the purpose of establishing blood lines, a stupendous task, for it meant the crossing of the Karak-Kum Desert of Central Asia.

As the natives belong to the wiliest and most uncivilized people in the world and inbreed their sheep, it was necessary to put large distances between the specimens selected in order to establish unrelated strains.

The Karakul owes its fur-bearing qualities to the practically extinct Danadar and from the standpoint of pigmentation bears the same relation to the bovine family as the negro does to the human race. The black Danadar, the original fur-bearing sheep, has become extinct in the last ninety years and, outside of the small flock discovered by Dragoman Petroff of New Bokhara and myself at Kedjumek, Bokhara, I cannot say that I have ever seen a flock; although it is possible to view occasionally a Karakul with the typical characteristics of the Danadar, the result of atavism.

The original black Danadar possessed the following anatomic characteristics: a small body bearing a striking resemblance to the hairy Navajo before that breed was ruined by fine wool admixture, thin legs, small head with a straight nose line, short erect ears, a long tail, and coarse, lustrous, black wool that did not oxidize into gray at maturity, as is the case with our black Cotswolds (which turn gray when about 20 months old) and with the Karakuls, provided they are free from fine wool admixture. If not free from fine wool admixture, the Karakuls become brownish in appearance, as is also the case with our domestic black fine wools.

The Danadar lambs at birth possess wonderful, velvety, lustrous skins with very small, entirely closed curls, in size from that of a black pin head to a pea. These gradually open up and therefore the lambs have to be killed

Karakul lamb skin showing tight curls. The trade name is Persian lamb fur.

the first few days after birth, as otherwise the skins lose their beauty and value. It was my great fortune to view several Danadar skins at Kedjumek, and a Moscow furrier was also the proud possessor of several black and gray Danadar skins.

I have seen several Karakul lambs in my flock with the unmistakable pealike curl of the Danadar, and it is possible that in time we might resurrect the extinct Danadar, but it will be an expensive undertaking and it is a great question whether the furrier would pay more for Danadar lamb skins than for the Karakul skins with tight, wormlike curls, known in this country under the trade name of Persian lamb fur.

In 1916 our government issued a twenty-five page bulletin and the same year the fourth expedition was organized.

My first flock was taken to my ranch near Wichita Falls, Texas, but when I learned of the tremendous yield of alfalfa per acre in the great El Paso Valley, even before the water was at all times sure, for the Elephant Butte dam, the largest artificial reservoir in the world, had not at that time been completed, I moved my sheep to my ranch near El Paso, Texas, which also applies to my second importation.

The selection of El Paso was made also on account of my health, as my throat became infected while I was serving on the attending staff of a hospital in Chicago. El Paso, particularly suited to my avocation and my health, is built on a plateau 3,762 feet above the sea level, at the foot of the lordly Mount Franklin. This medium altitude is not so high as to throw an increased burden on the heart. This is important in tuberculosis, because many patients also have weakened hearts. Neither will such altitudes produce the lung changes that higher altitudes cause, which make it impossible for patients to live in a lower altitude after making a cure.

Karakul rams on a Texas ranch. They are crossed with domestic ewes of a coarse wooled breed.

El Paso enjoys sunshine more than 331 days in every year. This maximum degree of sunshine, together with the delightfully comfortable temperature, provides as ideal conditions for heliotherapy as can be found anywhere in the world.

A carefully compiled report by the American National Karakul Breeders' Association, organized several years ago by Secretary Tomlinson of the American National Livestock Association, brings out the fact that it is doubtful if any other fur industry in America can hope to compete with the Karakul industry so far as profits are concerned, provided certain rules are adhered to, which have been laid down by the association.

While successful tests have been made by various governments, including our own department of agriculture and various breeders of the United States, the outstanding fact remains that the great El Paso Valley, owing to its almost perpetual sunshine and low humidity, has a location and climate well adapted for both health and the breeding of the Karakul sheep. Indeed, the continental climate of the Kara-Kum Desert is much the same as that of the Southwest. Under proper care Karakuls can be raised successfully in northern countries.

Looking Ahead for a Month or Two

FOR those who enjoy a peep into the editor's basket, a few choice articles to appear in the February and March numbers are announced. These are as follows:

ARE BASKETBALL TOURNAMENTS HARMFUL?
By Harlie Garver

MENTAL HEALTH FOR ADULTS
By George K. Pratt

HEALTH BENEFITS FROM OCEAN TRAVEL
By Clarence W. Leib

BARGAIN COUNTER BABIES
By Eleanor Pratt Livingstone

In Winter Garb

Photos by H. Armstrong Roberts

The Mental Patient: His Physical Care

By L. D. Hubbard

MANY people think that patients in hospitals designed particularly for the care of the mentally ill receive treatment limited to their mental ailments. It is, of course, true that the mental disorder is of primary interest, but it would be a foolish thing to attempt the cure of a sick mind if it were housed in a sick body.

Modern psychiatry tends to emphasize more than ever before the interdependence of mind and body, and it is clear that the person must be treated as a whole and not as though he were composed of a physical self and a mental self, each unrelated to the other. The mind may not recover just because the body is made well, but it is important that the person should have a smoothly running physical organism so that there will be nothing abnormal there to obstruct or delay the cure of his mental condition.

Let us consider the procedure in the case of a patient admitted to one of the most modern psychiatric hospitals in the United States. His physical welfare receives attention almost as soon as he sets foot in the ward, beginning with a bath and a shampoo. Then within a couple of hours he is seen by a physician and any acute condition is treated. In the course of a few days the patient receives a thorough physical examination, in addition to the mental examination. Should there be any findings to indicate such necessity, he is examined by specialists. Neurologic cases are turned over to the neurologist for investigation, his diagnosis noted and recommendations followed. Should there be the slightest sign of lung trouble, an x-ray picture is taken, sputum examinations are made, and the patient is put to bed for a period of observation. If he is from the South, the stool is examined for hookworm or other parasites.

Within the first week the urine is examined to determine the general condition of the kidneys and bladder. Then a complete blood examination is made—a Wassermann test is done, the hemoglobin percentage is determined, and cell counts are made. Thus infections, anemias and similar conditions are detected and further investigated. If the results of the Wassermann test indicate the presence of syphilis, a second test is made to confirm the first, and an examination of the spinal fluid is next in order. All persons suffering from syphilis are then referred to a group of specialists to whom they are sent each week for treatment.

Within a short time after admission the teeth are examined by the resident dentists and a full report is returned to the ward physician together with recommendations for x-rays of doubtful teeth, extractions and prophylactic treatment. A large percentage of newly admitted patients are looked over by the throat specialist, the oculist and the aurist.

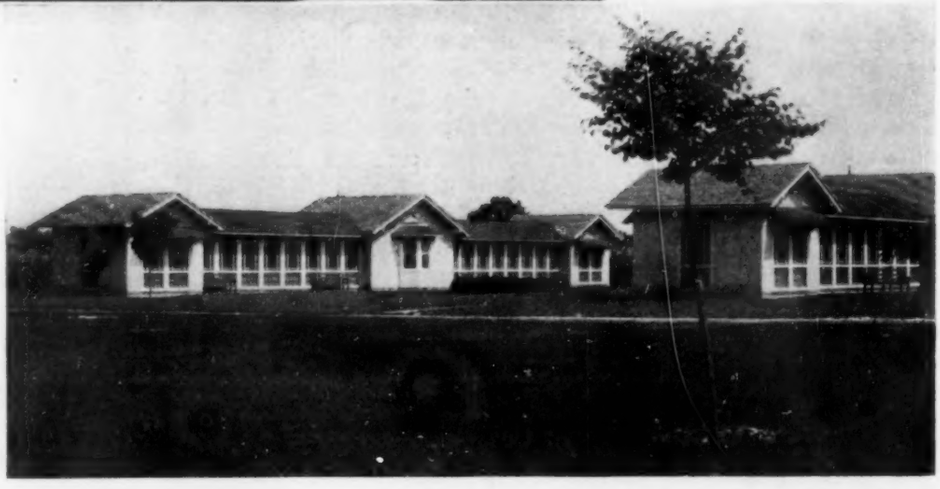
The reports being in, the various recommendations are followed out to the last detail. In the institution mentioned there is a large building devoted to the care of acute illnesses, a well-equipped laboratory, an isolation building and an operating room. In this department patients are under the care of resident surgeons and internists as well as consulting specialists. The most modern therapeutic appliances are available, and highly trained technicians are equipped to carry out diagnostic tests. This department also maintains a dispensary to which are sent patients suffering from minor ailments or injuries.

In order to care for patients suffering from tuberculosis there are several small cottages situated on the more remote parts of the hospital grounds. Here the patients may be outdoors all day in good weather and even during the winter the system of ventilation is such that the wards may be kept practically open. These patients are under the care of the medical staff although they are visited daily by the psychiatrists.

Great care is devoted to the patients' diet whether they are sick or well. A large staff of dietitians is in charge of the kitchens, and the meals are not only properly balanced and nourishing but are attractive and designed to

The building at the left houses the medical and surgical department of St. Elizabeth's Hospital, the government hospital for mental diseases.

At the right are shown the model cottages for the tuberculous patients at St. Elizabeth's Hospital, Washington, D. C.



appeal to all tastes. Different diets are served on different wards according to the class of patients treated there so that the aged, the sick and the underweight receive extra and appropriate nourishment.

Fresh air being essential to the well-being of every one, large porches are provided on all the buildings. During the warm weather, however, patients are taken out on the lawns, where they sit under the trees or play handball or skip rope as they wish. Besides the exercise that they get in such games there are frequent walks about the grounds for those who are able to leave the wards.

Personal hygiene is carefully looked after, for a person who is suffering from a mental illness often forgets the needs of the body. The condition of the skin, hair and nails is watched, and treatment is given when necessary, in addition to routine care. The feet are treated for corns and calli, and attention is given to the fitting of sensible and comfortable shoes. Faulty elimination is corrected by dietary and mechanical means as much as possible, in order that the patient may not come to rely on drugs.

Most of this treatment goes on while the patient remains on the psychiatric wards receiving psychiatric treatment. If a serious illness necessitates his transfer to the medical or surgical wards, the psychiatrist keeps in close touch with him during his stay there so that there is no serious hiatus in the treatment of his mental disorder.

Of course a great deal of treatment often considered to be directed toward the mental condition of the patient tends also to improve his general health. The hot and cold showers, the continuous baths, the packs, the sitz baths and all the other forms of hydrotherapy tone up the entire system by their effect on the circulation. Ergotherapy, or the prescription of work adapted to the individual's strength and endurance, has a beneficial effect on the muscular system. Even such an important but often overlooked matter as regular hours for food, sleep, work and play has its part in helping the body to become and to remain fit.

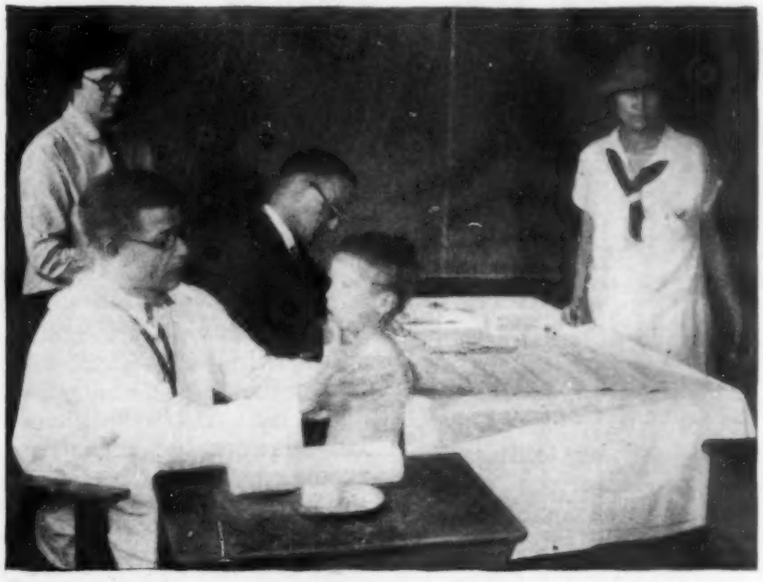
The training that the patient receives in the healthful regulation of his life while in the hospital is often of help to him after his discharge in keeping himself in good condition and in improving the hygiene of his household.

Last but not least, the physical and mental aspects of the patient's life are so inseparable that with the solution of his mental difficulties, physical ills that have annoyed him for many years may disappear completely. Thus patients often leave the hospital asserting that they feel better and are happier than before their mental disorders came on them.

Community Health Conferences *in* Colorado

By Arthur C. Cross

FIVE years ago in Colorado were organized community health conferences, frequently miscalled traveling clinics. Since that time they have developed until now it is next to impossible to meet the demands of communities for the work. At present all the state-wide health agencies are cooperating in these conferences.



A specialist examines the throat, scalp, skin, spine and extremities of each child and the condition of his nutrition and posture. He advises the parent what should be done to correct the defects.

The state child welfare bureau sends its executive secretary to give her personal services and to collect statistics. It pays the salary of a widely known pediatrician, who helps in the physical examination of children, and of a nurse, who gives the eye-chart test if there is no oculist in the community. This same agency also pays the expenses of a gynecologist, whose services are free both to the local physician in consultation and to the older girls and to the mothers in the community.

The state tuberculosis association pays the salary and expenses of a trained worker, who weighs and measures children. Either a dentist or a dental hygienist is provided by the state dental association. The University of Colorado, through the secretary of the bureau of community organization of the extension division, arranges the conferences in the first place and furnishes the services of a psychiatrist, a social worker and a psychologist. The state agricultural college and the American Red Cross aid in follow-up work. Thus are the conferences carried on by experts.

These conferences are distinctly community affairs. They are held only where they are wanted. Within the last two years they have been conducted in 100 communities. Some weeks in advance, the secretary of the bureau of community organization goes to ten or twelve cities and rural communities to offer the conference. Colorado has few cities; it is essentially rural, the people living in mining camps or in agricultural centers. Many of the latter are miles from a railroad. Therefore the secretary must select places fairly close together and accessible by automobile if not by railway lines.

Arriving, he calls first on the local physician and explains the work in detail. It is interesting to note that of the 216 physicians called on only three have refused to cooperate. The secretary asks the physician not only for his moral support but also for his personal services in performing part of the examination. After obtaining the doctor's consent, the secretary then calls on representative citizens: the president of the women's club, presidents of the various luncheon clubs, the superintendent of schools, the local dentist, members of the school board, and perhaps the president of the bank and the editor of the local paper.

A meeting is arranged for the representatives of groups thus secured, and the plans for the community health conference are discussed in detail. If the representative citizens at this meeting are interested in the plan, the men usually agree to meet the expense of $50 plus publicity to hold the conference. The money is asked for several reasons: It is an indication that the community really wants the conference; none of the cooperating agencies is oversupplied with money, and the local committees will work energetically to get their money's worth out of the conference when it comes. Sometimes the

board of education meets the expense; again it is the Lions' Club, the Elks, the city council, a public subscription, or a combination of all these agencies. But the conference is advertised as free to all children.

Next a committee of twenty women is formed. Their duties are various: to advertise, to arrange the place of meeting on the day of the conference, to help undress and dress the children, to help keep records and to assist with the clerical work in general. Usually school is dismissed (the first six grades, at least), and the building is turned over to the conference for one or two days of physical examination and education in public health matters. If possible, eleven rooms are provided in order to maintain the proper degree of privacy and of quiet for efficient work.

After the secretary has completed the plans in one town, he goes to the next. At the end of his trip, which takes from one to two weeks, he has arranged a schedule that will call for conferences at from six to twelve places, one every day for a week or two.

Behind Scenes at Typical Conference

The work may be outlined by telling of a typical conference. Representatives of the organizations mentioned arise at 5 o'clock and drive 50 miles over mountain and plains to the town of Westcliffe. It has been raining and the roads are slippery, so they do not arrive until 8.

Waiting for them at the schoolhouse, they find the chairman of the physical examination committee. She is wearing a Red Cross apron, a relic of war days. She leads her nineteen assistants in to the executive secretary of the state child welfare bureau, who assigns them to their work with instructions as to their duties. In the hall near the exit, as was planned weeks before, is a desk at which a maternity and infancy worker is to collect all the records made during the conference. The building is well heated.

A half a dozen children are present with their parents, as no child is examined unless accompanied by a parent or a guardian. They are registered on permanent blanks supplied by the state child welfare bureau, and parent and child go first to the dentist, who examines the child's teeth. He explains to the parent the condition he finds and advises her how to remedy any defects. Then the two go to the room for the eye examination.

After this is done, the child is undressed behind a screen in another room, wrapped in a blanket or bath robe furnished by the home, and weighed and measured. The two find the local physician in the next room, where heart, lungs and abdomen are examined. Here again the parent has an opportunity to hear advice about the child's condition. Mother and child now proceed to the adjoining room, where the pediatrician checks on positive findings and in addition examines the child for flat feet, curved spine, skin disease, malnutrition and other physical defects not already discovered. This is the specialist whom the parent has wanted to see. He answers the parent's numerous questions, recommends the necessary corrections and urges the parent to consult his family physician.

Weighing and measuring is done by a representative of the state tuberculosis association, with a local nurse assisting.

The child is next taken to the social worker, who gets the family history for any mental or nervous defect; then the psychologist gives the child mental and mechanical tests under the direction of the psychiatrist. When this is done, the psychiatrist has a conference with the parent. He may, with the parent's consent, take a specimen of blood to be sent to the state laboratory for examination, and he advises on habit training or vocational guidance. It may be, however, that it is the parent who is more in need of the psychiatrist's attention than the child, and tactfully that matter is drawn out.

Parent Given Child's Complete Record

Finally, the parent goes to the desk near the exit and leaves the completed record there. She takes the child back to the dressing room to be dressed, and when mother and child return all the findings of the conference, together with the advice that has been written on the record during his progress from one room to another, has been copied on a health certificate, which is a permanent record.

The examination of children continues until late in the afternoon. After it is over, the gynecologist lectures on prenatal influences and the normal development of the young woman. In the evening, a free public meeting is held at which various workers speak. Anybody interested is invited to ask questions.

This invitation has been so generally accepted that on occasions the meeting has been prolonged until 11 o'clock or later. Sometimes a

mother will bring a father whom she has failed to convince that Johnnie's adenoids should come out. Or perhaps the mother herself, on her return home, has thought of questions she forgot to ask during the examination.

Three weeks after the conference, a duplicate record of each child is sent back to the chairman of the physical examination committee so that, by publicity and by personal visits, she may prepare for the follow-up worker. Two weeks later a nurse from the state tuberculosis association, the state agricultural college, the state child welfare bureau, or the American Red Cross goes back into the community, tabulates the corrections made, and aids in procuring further correction of physical defects. Permanent well-child clinics have been established by the state child welfare bureau in 60 per cent of the communities visited thus far.

About 15 per cent of the children are asked to take a psychologic examination to determine their mental status.

Many other communities not yet visited have heard of the improvement of the children who have attended the conference, and as a result they are now asking that a conference be held in their towns.

Mental Health Rules *for* Middle Age

MANY persons who have managed to get through the years of childhood and youth fairly well find that their mental habits are not adequate for the demands and changes of middle age. The unhappy are always wrong, says Dr. Alice E. Johnson in *The Survey*. So if one finds oneself middle aged and unhappy, the only thing to do is to change one's mental habits.

Of course, this is easier said than done. Yet it is not impossible, for while childhood is the ideal time to establish right habits of thinking and reacting, the laws of mental hygiene are valid at all ages and need only be applied. Frankness and courage will be needed for the task. Sentimentality and vanity must be thrown overboard along with worn-out ideals. One must learn to discriminate between reasons and excuses and to discard the excuses. Only in this way can a life of reality be substituted for one of mere wishes.

To aid in this readjustment of mental life, four rules may be followed. Rule 1 is "Do not say yes and no at the same time." The wobbler is always unhappy and so are his friends. It is better to make mistakes than to do nothing. If a person can learn to see a thing as a whole, he will easily decide what is good. He should remember that everything has its price and that vain regret is self-indulgence.

Rule 2 is "Do not allow an accumulation of unfinished business." Each problem should be answered as it arises. Questions that are postponed, evaded and repressed return in a dozen forms to destroy one's peace, and they soon develop into the excessive fears of the neurotic.

"Keep your mind open to new aspects of truth" is rule 3. By the time middle age is reached, the hypercritical, fault-finding attitude of childhood should be left behind. Freedom, that special gift of the middle years of life, can only be achieved by letting go of the past. The open mind sees the good and bad in everything and looks for the ultimate meaning of things. Those who disregard this rule live a narrow, sterile life with the prospect of an irritable, unlovely old age.

"Disregard what is merely personal," rule 4 reads. Most of the destructive emotions such as fear, hatred, jealousy and envy are personal, and since no life is lived alone, these should be discarded. The same is true for grouches and moodiness. The reason for moodiness is not temperament but self-love, and there is no excuse for it. Unless a feeling can be translated into useful action it need not be considered.

By following these rules, by learning if one cannot get what is wanted, to accept cheerfully what comes, by saying yes to life, one may be free from the uncertainties of youth and will see no catastrophe in the passing of the years.

H. Armstrong Roberts

Friends to man.

Antivivisectionists' Methods

By W. W. Keen

[NOTE.—HYGEIA has referred on several occasions to the manner in which the opponents of animal experimentation misquote and misuse available evidence in an endeavor to fortify their cause. Dr. W. W. Keen presents here correspondence published largely in the New York *Times*, together with comments concerning each of these letters, as another evidence of this fact. The letters in themselves bring out important scientific facts apart from their interest as evidence.—ED.]

DOCUMENT No. 1, "An Anti-Vivisection Error," was printed in the New York *Times*, Feb. 17, 1926.

To the Editor of The New York Times:

The New York Anti-Vivisection Society has published an undated four-page leaflet with numerous horrifying illustrations, showing the alleged cruelties practiced in experimental research. On page 4 I find the following statement:

"Dr. Borel, Pasteur Institute, Paris, frankly says: 'For fifteen years I have vivisected birds, horses, dogs, rabbits and monkeys, and I can affirm in all cases it is nearly completely impossible to employ anesthetics upon them so as to render them insensible. The suffering of the animals is so great that after the experiments they are altogether stupefied. The employment of curare, far from diminishing sensibility, augments it exceedingly. Any one who is accustomed to pathological experiments knows animals suffer greatly when vivisected until death comes to deliver them.'"

As this purports to be a quotation from some book, pamphlet or other publication, I have three times written to Mrs. Diana Belais, the president of the New York Anti-Vivisection Society, 456 Fourth Avenue, New York City, asking for its source, but have never had any reply.

I wrote also to Dr. Borel at the Paris Pasteur Institute, and have received a reply in which he says:

"I do not remember ever having been interrogated (consulté) on this question. I have never, however, used the words which are attributed to me in the note which you have sent me.

"I have never had occasion to employ curare and, therefore, cannot speak of its action. The only anesthetics I have used are chloroform and ether, and as everybody knows the anesthetic completely suppresses the pain, when any would occur."

The statement that animals cannot be fully anesthetized, which the antivivisectionists constantly reiterate, is absolutely false. Every one of the eighty-six laboratories of research in the United States anesthetizes animals just as completely as every surgeon anesthetizes human beings. Even plants are anesthetized and wake up, or, if the anesthetic is continued, die just as do human beings and animals.

I have published hundreds of operations on human beings, but I never think of adding that they were anesthetized. So it is of animals today, as is shown by the following letter from Professor Richet, which my friend Prof. Walter B. Cannon of Harvard allows me to append to the denial of Dr. Borel.

"As to the comments on my experiments in certain publications, they are impudent falsehoods. I have never experimented on animals without anesthetics."

Animals, as I have personally witnessed, can be and are anesthetized every day without any difficulty.

W. W. KEEN, M.D.

Philadelphia, Pa., Feb. 11, 1926.

The statement quoted from the leaflet of the New York Anti-Vivisection Society is, of course, absolutely untrue.

Dr. F. Borel never had a place on the staff of the Pasteur Institute. The New York Anti-Vivisection Society added the words "Pasteur Institute, Paris" after his name without the slightest authority.

The allusion to the use of curare made by Dr. F. Borel is also untrue. Dr. A. Borrel has never used curare, for as will appear later there is a Dr. F. Borel and a Dr. A. Borrel (with two r's), the latter being on the staff of the Pasteur Institute.

Document No. 2, from "Topics of the Times," was printed in the New York *Times*, Feb. 18, 1926.

QUOTATIONS MADE OF NOTHING

In a letter printed on this page yesterday, Dr. W. W. Keen, who ranks among the country's great surgeons, told of a recent experience of his with the anti-vivisectionists. He and many other defenders of medicine and of science in general have had like experiences with those strange people.

He had noticed in a leaflet issued by them what pretended to be a statement from Dr. Borel of the Paris Pasteur Institute to the effect that, after fifteen years of using the knife on animals of many kinds, he admitted or asserted that the complete anesthetizing of animals was nearly impossible.

Dr. Keen knew that this was nonsense of which Dr. Borel could not have been guilty, but he wrote three times to Mrs. Diana Belais, president of the New York Anti-Vivisection Society, asking in what book or article Dr. Borel had made the assertion quoted.

The surgeon received no answer. Then he wrote to Dr. Borel and promptly was informed that the French scientist never had made any statements even remotely approaching those ascribed to him—that he never had been questioned on the subject.

The fact is that animals are as susceptible to anesthetics as human beings and that they always are anesthetized before operations of any seriousness or delicacy, because without it they would be difficult or impossible.

Not long ago the antivivisectionists made a like misuse of Dr. Charles Mayo's name, and the *Times* secured from him an indignant denial that he ever had been mad enough to declare animal experimentation useless.

But they never apologize, never retract.

White Studio

"Ask little Joseph Meister how 'very gentle' was the dog that inflicted fourteen wounds on him." This is a scene from Guitry's play Pasteur, with Henry Miller in the title rôle. Little Joseph Meister is being brought to Pasteur.

Document No. 3, headed "Vivisection Document," was printed in the New York *Times*, May 29, 1926.

To the Editor of The New York Times:

On February 17 you opened your columns to an attack upon me, or, if you prefer, upon the literature of the New York Anti-Vivisection Society, by Dr. W. W. Keen. I am now sending you a copy of Dr. Borel's article condemning vivisection (taken from the British Museum's newspaper room files of The Pall Mall Gazette, Aug. 5, 1889), which article supplied the quotations questioned. DIANA BELAIS,

President New York Anti-Vivisection Society.

New York, May 21, 1926.

[Enclosure.]

From The Pall Mall Gazette, Aug. 5, 1889.

IS VIVISECTION NECESSARILY TORTURE?

To the Editor of The Pall Mall Gazette,

Sir: Will you permit a vivisector, past and present, and future if it were necessary for the good of science and mankind, to tell those good people who believe seriously that the animals experimented on by M. Pasteur do not suffer, that they are deceiving themselves; my personal experience of fifteen years' practice gives me the right formally to deny the truth of that. I have vivisected birds, horses, frogs, rabbits, monkeys, and, above all, dogs, and I can affirm three things:

1. That it is nearly completely impossible to employ anesthetics upon them so as to render them insensible; as, for example, ether, chloroform, chloral, opium (morphine, codeine), cannabis indica (hashish—must be meant for cocaine), &c.

2. That the sufferings of the animals are so great after the experiments that they are altogether stupefied; the most ferocious dogs allow themselves to be used, later on, with the indifference of sheep.

A person must not absolutely confound their tranquillity with the relief given to a man after a necessary surgical operation, but as the apathy and indifference of a martyr.

I myself have experimented upon mad dogs; the second time I placed them on the table they were as gentle as rabbits. For the

rest, it may be said in passing, mad dogs are already so ill that in general they are very gentle.

3. The employment of curare, far from diminishing sensibility, augments it exceedingly; more than that, the use of it necessitates tracheotomy beforehand to make them respire artificially, because the curare totally paralyzes all voluntary movement, and thus they would otherwise suffocate.

Any one who is accustomed to a laboratory, to physiology or to pathological experiments knows that animals suffer when vivisected, and greatly, until death comes to deliver them. No! It is necessary for M. Pasteur to have living animals to support his thesis. This letter is not the place to inquire whether he is right or wrong; but that I maintain—I, pathologist and lately chief of a hospital—that he has imposed upon brave men whose confidence he has won when he pretends that these animals do not suffer. To listen to him to submit themselves to experiments, one would say they came voluntarily to procure pleasures hitherto unknown.

DR. F. BOREL,
8 Soho Square, July 19, 1889.

The whole paragraph in the first document purporting to be a quotation is not even correct as to Dr. F. Borel. The statement consists partly of phrases from Dr. F. Borel's real letter in Document No. 3 with additional words to make sense of the paragraph.

In Document No. 3 Mrs. Belais has "dug up," as the *Times* said, a letter written by Dr. F. Borel thirty-six years ago. In it he states that he has experimented on many and various animals "for fifteen years," yet he has been such a bungler that he was never able to make the victims unconscious to pain. All other experimenters have no difficulty in completely anesthetizing these very animals.

Dr. A. Borrel was not elected to the staff of the Pasteur Institute until three years after the publication of Dr. F. Borel's letter. At first I was not aware of the difference in their surnames (Borel and Borrel) nor did I know the Christian name of Dr. Amédée Borrel, as he had never used it before in our correspondence.

In July, 1920, I visited the Pasteur Institute in Paris. I had the great pleasure of shaking hands with Joseph Meister, then the concierge of the institute. He was the little Alsatian boy who, July 6, 1885, when only 9 years old, had been the very first human being rescued by Pasteur from a terrible death by hydrophobia. Read about the anxious days and sleepless nights of Pasteur, for he had not quite completed all his investigations.

Dr. F. Borel declares (document No. 3) that "mad dogs are already so ill that in general they are very gentle." Ask Joseph Meister how "very gentle" was the dog that inflicted fourteen wounds on him.

Document No. 4, "Mixing Doctors Up," was printed in the New York *Times*, Sept. 9, 1926.

To the Editor of The New York Times:

In your issue of Feb. 17, 1926, you published a letter from me quoting an absolute denial by "Dr. Borel of the Pasteur Institute" in Paris of statements attributed to him in a leaflet issued by the New York Anti-Vivisection Society, of which Mrs. Diana Belais is president.

This denial caused Mrs. Belais to institute an active search by quite a number of her English friends to find the original letter by "Dr. Borel," published in The Pall Mall Gazette (now extinct) on Aug. 5, 1889. They finally found a file of this newspaper in the British Museum, and Mrs. Belais triumphantly sent it to the New York *Times*, in which it was published on May 29, 1926. This letter is signed—to Mrs. Belais's undoing—"Dr. F. Borel." There is great virtue in that "F."

Had Mrs. Belais read this ancient letter carefully she would have seen that it could never have been written by one of the staff of the Pasteur Institute, for it is a bitter attack on M. Pasteur and the institute. Moreover, in his letter Dr. "F." Borel makes no claim of being on the staff of the Pasteur Institute. Dr. Calmette, assistant director of the Pasteur Institute, has assured me in a letter just received that Dr. "F." Borel never was on their staff.

Antivivisection literature consists largely of addition, subtraction and imagination (to use no shorter and harsher words), as I have demonstrated in detail in my book entitled "Animal Experimentation and Medical Progress" (Houghton Mifflin Company, pp. 110 to 145). I long since stated in print that I never trusted any of their quotations or translations unless I had compared them with the originals.

I took a simpler method to obtain a copy of this letter of Dr. "F." Borel. I wrote to the Library of Congress and in forty-eight hours had a guaranteed copy, due to the speed of the library staff.

It is refreshing for me to testify that this letter as printed by Mrs. Belais is a verbatim copy of the original.

But "Dr. Borel of the Pasteur Institute" is a totally different person from Mrs. Belais's friend. His name is not "F." but "A."—Amédée Borrel. Moreover, the real Dr. Amédée Borrel of the Pasteur Institute writes me that he spells his name with two "r's" and not one "r."

In addition to the letter from Dr. Borrel I have just received a pamphlet issued by the Librairie Hachette in Paris. It is one of a large series, consisting of text with copious illustrations relating to many different subjects. This one has 64 pages and 108 illustrations devoted solely to the career of Pasteur. On page 54 there is a portrait of Dr. Amédée Borrel (with his name correctly spelled) as one of the assistants in the Pasteur Institute.

This finally disposes of Dr. "F." Borel's letter of 1889 and of Mrs. Belais's defense.

My long delay is accounted for by the fact that I have just received the last necessary documents for my reply to Mrs. Belais.

W. W. KEEN,
Philadelphia, Sept. 6, 1926.

Mrs. Belais' resurrected letter was her undoing as I have pointed out in Document No. 4.

Better Lunches *for* Little Folk

By *Grace Ryan*

HOW the average home-maker dislikes putting up a lunch! This is chiefly because it is difficult to think of things to put in a lunch. In addition, its preparation comes at the most hectic time of day, that hour when breakfast must be prepared, children's faces washed and hair combed, and the general 101 duties that come between getting-up time and leaving-for-school time done. It is difficult, too, to send the choicest and most desirable things in a lunch, because of the fact that food jostles and tumbles about and gets mussy, soggy and unattractive.

Matters of prime importance in putting up a lunch are adequate nutrition, sanitation and an attractive pack. A couple of cold pancakes are not adequate, yet many children carry such lunches. One of the real reasons for urging better lunches for school children is that many of them fare forth to their work (walking sometimes two or three miles) having eaten a sketchy breakfast consisting only of a snatched piece of toast and a cup of coffee or a couple of hot cakes, a muffin, a bowl of cereal, an apple, or a cup of cocoa, any of these being the smallest fraction of what a child's breakfast should contain.

Hurried Breakfasts Hard to Digest

This food is digested and assimilated long before noon. Along comes another inadequate meal. Each day the child lags behind a little on his food schedule; each day he borrows a little strength ahead on the next day and ends up, sometime in his life, physically bankrupt. His health account is overdrawn.

These snatched breakfasts are many times due to the fact that fathers and mothers get up too late to make an orderly breakfast possible. This is not often so in the country, but is frequently the custom in town. Besides being a genteel way of starving a child, the practice almost ruins his stomach's chance of digesting food. A stomach cannot do a good job of digestion when it is being joggled and hustled across lots before the tardy bell rings.

The requirement of sanitation is not so difficult to achieve in lunches. Scalded, aired pails and boxes, fruit washed before packing, perishables in tight jars with screwed lids, sandwiches or cakes in oil paper, all help to meet this requirement. At the same time they add to the attractiveness of the lunch. How children do love to have things attractive! The mother needs only to contrast the relish with which she would attack a crumbly, soaked sandwich, soggy and clammy, and one nicely made, freshly cut and wrapped.

Sandwiches are almost necessarily the best lunch box friend. The only caution is that they be wisely selected as to fillings. They should be varied as much as possible. Day-old bread, cut in thin slices (whole wheat as well as white), and well-seasoned fillings—creamy but not thin and drippy ones—should be used. Calories may be added to sandwiches by the liberal use of butter. Each pair of sandwiches should be wrapped in oiled paper. Fillings should be in contrasting flavor to other lunch articles.

If meats, nuts or varieties of cheese are to be used for sandwiches, they should be ground. This adds to the digestibility of these foods, which are heavy and should be used only in moderation, although their use is necessary at times for the sake of variety. In general, fruit fillers are most healthful. Quantities of highly seasoned fillers, such as potted and deviled meats or commercial cheese paste, should be avoided.

A Proper Dessert

The old-time luncheon dessert usually consisted of cake, pie, doughnuts, apples and oranges. Now, mothers pack baked apples, canned fruits, with the syrup drained off, custards, tapioca, gelatin desserts and junket, all put up in tiny bottles, glasses or jars with screw tops. Rich cakes, pies and foods of that class may do very well for the adult's lunch but their promiscuous use for the child should certainly be avoided.

A child craves sweets, but it is advisable to supply these by using plain sugar cookies, sponge cake, angel food, date cake, an occasional fruit turnover, raisins, dates, figs and fruit paste. Nutrition workers advise the occasional use of shelled nuts.

The hardest secret to learn in lunch packing is that of desirable combinations. If meat, fish, eggs or cheese fillings are used in sandwiches, a juicy fruit or a small portion of a fruit or vegetable salad should be supplied. With this lunch a heavy dessert, such as pie, doughnuts or rich cake, should be avoided. If lighter sandwiches are used then a heavy dessert may follow, but not of the group just mentioned.

Whenever possible the mother should add milk to the lunch. Too much cannot be said about the benefits to be derived by the addition of milk to the child's diet. The principal objection to milk in the school lunch is that it is difficult to carry and to keep sweet. Such is the case, yet there are ways of carrying it so that it will keep in good condition. Many mothers use screw-topped jars or home-made thermos bottles.

The chief food rule for children is to use simple foods and plenty of them. A child should never be allowed to go to school without a warm breakfast and then be required to eat a cold lunch at noon. Warm food promotes easy and rapid digestion. The food mass, in order to be digested, is raised to body temperature. If food goes into the stomach cold, then the stomach spends some of its energy warming the mass to proper temperature. A mother can conserve the child's energy by providing him with an ample hot breakfast.

Also she can concentrate her efforts toward some hot food for the child at noon. It will cost something, this hot lunch. But then so do doctors' visits and hospital service and clinics. Why not spend the lunch dime for preventive measures, such as hot food at school?

A Hot Dish Helps

Of the total food value for the day, the lunch counts less than a third; mothers should make that third a consistent link between the morning and evening meal. It is not practical or possible in many instances to serve highly nutritious foods at school at noon. Perhaps these can best be served at home for breakfast or for supper, yet it is possible to serve at school hot food, abundantly adequate for that time of day, and at the same time have it a good supplement to home meals.

Other lunches, equally as important as the school lunch, are those often given to a child when he comes home from school. This matter of eating between meals is one calling for attention.

Promiscuous and heavy eating after school is not desirable. Nor is it good for a child to piece on sweet pastry or candy, foods that blunt his appetite for real food at dinner.

Piecing after School

There are several conditions that warrant pieces after school. The first instance is that of the underweight child who in many cases needs extra nourishment. Such children frequently are of the type unable to handle average quantities of food at the three regular meal hours. They need food at more frequent intervals. The after-school piece, however, should not be a cookie, or a piece of cake or pie. Suitable for such a child are a glass of milk, a cup of hot cocoa, not too strong, a bread and butter sandwich, a bowl of bread and milk, a bowl of soup, or a dish of stewed fruit only slightly sweetened.

In other instances, a piece may be advised. On the farm supper is often served late, at 7, 8 or 8:30. Under such circumstances, a child should be allowed food at once after coming from school. The interval between noon and a late supper is too long. In yet another class fall little children who walk great distances to school. Such children are tired and hungry when they arrive home and need food.

In all cases the pieces should be given at once after school, not just before supper. The food must be simple and of a type readily digested. The objection to piecing comes, not so much from any harm that the food can do, but because pieces usually consist of cake, pie, candy and other sweets, which overwork the child's stomach and dull his appetite.

HYGEIA
THE HEALTH MAGAZINE
Published by the American Medical Association
535 North Dearborn Street, Chicago

Plain Facts about Health and Disease

HEALTH NEWS OF THE MONTH

Children Who Are Deafened

Recent surveys of the condition of hearing of school children in the United States, according to Drs. Edmund Prince Fowler and Harvey Fletcher, indicate that more than three million public school children have defects of hearing. No doubt, school children have always been affected in this proportion with such defects, but only recently, through advancement in the forms of apparatus especially adapted for testing the hearing of children, has it become possible to detect these defects in their early stages and to plan the care of the child accordingly.

The method of detection involves the use of a device known as the audiometer, developed through the laboratories of the Bell Telephone Company, which obviously has always been especially interested in factors associated with hearing. By the use of this device it has become possible to test simultaneously the hearing of all of the children in a schoolroom. However, even before the hearing is tested a physician usually attempts to find out whether or not the child has previously had any aches or pains in his ear, whether he has ever had a running ear with infection, and whether or not he hears noises in the ears like buzzing, hissing or roaring. When defects are found, the ears are examined, and at the same time an investigation is made of the nose and throat to determine whether or not there is any associated disease that might have an effect on the ears.

As a result of their investigations, the physicians are convinced that special classes for lip-reading for the deafened should be provided in each school during the school hours. These classes should be conducted by teachers trained in the lip-reading method. Special schools for the deaf should be provided for those having a great loss of hearing, since such children are immensely handicapped in attempting to acquire information by the usual methods of teaching.

A study made with similar methods by Dr. Horace Newhart among school children in Minneapolis emphasizes also the importance of applying preventive measures during school age. Indeed, several investigators assert that 80 per cent of cases of progressive deafness in the adult might have been cured if they had been detected in childhood.

Who Is the Child's Father?

Until recently it was not possible to say with any certainty whether or not a certain man might be the father of a certain child. The question was invariably answered with the statement that science had not yet determined any method sufficiently accurate to have legal status.

In the meantime, however, information has accumulated that indicates the possibility of giving some definite decisions in this matter. The blood of all persons contains certain substances that have to do with the clumping together or the dissolving of the red blood corpuscles when two bloods are mixed. For more than twenty years it has been known that people may be grouped into various groups according to the manner in which their blood reacts against that of other persons.

More recently it has been found that such grouping is hereditary to a certain extent, and that the marriage of a person of group 1 with a person of group 4 can result only in children in groups 2 and 3. A cross of 1 and 1 can result only in children of group 1, whereas crosses of 1 and 2 or 2 and 2 can result only in children of groups 1 and 2. The test is very simple, involving merely the application of the serum of the blood of the person to be tested to samples of blood of which the group has already been definitely determined.

It is not difficult to get the consent of a man to do this test, since it cannot definitely indicate that he is the father of a child, although it can with certainty indicate in some instances that he could not possibly be the father.

The Glover Cancer Cure

Cancer cures, as some plants, are perennial, appearing in public print whenever the promoters can secure a hearing from publishers of newspapers or other periodicals. Time and again readers of scientific periodicals as well as the public press have been warned that there is as yet no scientific evidence that cancer is of infectious origin, and that there is no serum that has been established as having the slightest value in the treatment of this disease.

Nevertheless, the eternally hopeful press and the consistently optimistic promoters continue to advance preparations for public sale without having proved their merits.

The most recent preparation to receive newspaper publicity, this time through the International News Service primarily, is the Glover cancer cure. The history of the repeated appearance of this promotion is a sad commentary on the difficulty of instructing the public press and on the still greater difficulty of keeping it instructed. To the thousands of persons who have inquired about this matter, it need only be said that there is no more proof today to support the claims of Glover than there was when his promotional efforts were condemned one year ago or five years ago.

From time to time, in meetings on the subject of cancer that have been held throughout the country, optimistic physicians and, strangely enough, even more optimistic surgeons have stated in lectures or in interviews that the time is not far distant when a serum method for the treatment of cancer will be available. In commenting on this point, it can only be said that there is no more reason to believe today that a serum method for the treatment of cancer will be available in the near future than there was for believing such a prediction five years ago.

Before any hope of a serum method can be entertained, it will be necessary to show that the disease is caused by an infectious organism against which the body builds a resisting substance in much the same manner as it builds resisting substances against the bacteria of diphtheria and scarlet fever. The large majority of investigators of cancer are convinced that it is not an infectious disease in any sense of the word. M. F.

GROWTH OF THE SLUM CHILD

THE child of poor parents, according to the observation of a German investigator named Zellner, is characteristically broad; the child of well-to-do parents characteristically tall. Paton and Findlay have recently published the results of the "first extensive attempt to estimate the influence of various environmental conditions on the growth and nutrition of the slum child," as seen in Scotland. The purpose of the study was not to demonstrate that the child of the slums is smaller and less vigorous than the child of well-to-do parents or the country child, for this was already known. Rather, effort was focused on a study of environmental and parental conditions, with the hope of discovering why some children of the poor are well grown and why some are not.

Many preconceived ideas had to be abandoned. In the first place, although weight and, to a less degree, height are delayed in the town infant below eighteen months of age, the growth curves for the town and country children older than eighteen months seem to run fairly parallel.

Another idea is so firmly established that it has long been expressed in the adage that "the poor man's curse is his poverty." However true this may be in other respects, a clear relation between the income of the family and the nutrition of the children has not been found. Overcrowding, with consequent decrease in air supply, although widely assumed to be responsible for stunting in children, seems actually to be insignificant. The undersize of children of the slums, furthermore, can scarcely be due to deficient food supply; for the rate of growth of children above eighteen months of age has been shown to be satisfactory. Health of the mother during pregnancy and subsequently might reasonably be assumed to have an effect on the growth of the child. The study, however, has not borne out this assumption. There is not, moreover, a clear relation between the size of the child and whether it is or is not breast fed in infancy. After the usual period of weaning the artificially fed child is as strong as the child that is breast fed. It is possible, however, that only the fittest children survive, and thus the final comparison may be affected.

As far as this study has shown, only two factors seem definitely to affect the stature of the slum bred child: heredity and the efficiency of the mother. Small parents tend to beget small children, and it is possible that the smaller, machine-tending adult of the industrial center represents a type that is better adapted to city

life and its tasks. Inhabitants of cities are being recruited less and less from the country, and a type of inhabitant born, bred and permanently dwelling in cities may be developing.

Maternal efficiency, the ability of the mother to buy a maximum of high calory foods with a minimum of money and her disposition and ability to expend care and effort on the rearing of her children, is the factor of outstanding importance in the well-being of her offspring. Indirectly, the air space available per person, the size of the family, overcrowding and the mother's health may react on her efficiency. However, it is not clear which is cause and which is effect. It may be that the inefficient mother helps to produce bad conditions rather than that bad conditions produce the inefficient mother.

The investigators who prosecuted this careful study and kept it as free as possible from impressionism and prejudice claim for it only a pioneer value. They state that "like most scientific investigations it raises more questions than it answers" and "points out lines for further work." R. M. H.

INSANITY AND MARRIAGE

STATISTICS thus far available indicate that married men usually live longer than single men. To this, a cynic replied that they do not really live longer; it only seems longer. Statistics recently analyzed by Dr. George M. Robertson indicate that a married man is also better off than a bachelor so far as concerns the likelihood of insanity. Men between 25 and 35 years of age, remaining bachelors, usually die four years sooner than married men, and there is three times the risk of becoming insane.

The commission in lunacy of the state of New York assembled statistics covering a population of nearly nine million persons. These figures showed that proportionately more men become insane than women, notwithstanding the fact that women are more emotional and excitable than men. However, the male portion of our population is likely to indulge to a greater extent in alcohol and is likely to have a higher incidence of infection by the organism of syphilis. That form of insanity known as general paresis, or softening of the brain, is a late result of infection with syphilis.

Insanity seldom develops in persons under 15 years of age. The tendency to develop mental disturbance reveals itself first between 15 and 19 years of age, but becomes more pronounced between 20 and 24. From then on the number of persons revealing the first signs of mental disturbance rises steadily until the age of 50, after which there is a decline until the more advanced ages are reached. Past 65 years of age, there is a rapid rise associated with the mental disturbances of old age.

The loss of a wife or a husband seems to increase in a marked manner the incidence of insanity. Up to the age of 55, the prevalence of insanity among widows and widowers is almost double that of married men and women. This is apparently associated with the mental shock that follows the loss of the lifelong companion. M. F.

MODERN SCIENTIFIC MEDICINE IN THE ORIENT

NO LONGER are the happenings in far distant lands of merely academic interest to the western world.

The various nations of the globe have been brought so close together by commercial relations and by modern avenues of transportation that events like outbreaks of epidemic disease occurring in any country may be of great concern to a people far distant. An outbreak of bubonic plague in China, of cholera in India, of smallpox in Russia, may in spite of the most careful sanitary precautions affect the people of the United States through some slip at the quarantine station or through the smuggling over our borders of an infected person.

That China, with its vast population of 400,000,000—approximately one fourth of that of the world—has not adopted modern scientific medicine concerns other nations to not a small degree. The editor of the *National Medical Journal* of China says that "no observing person will deny that the scentific spirit as generally defined today is sadly lacking among the masses in China, and this is markedly reflected in the tardy way in which modern medicine is accepted both by the educated and the uneducated."

Up to 1870, ancient medicine was the universal practice in both nations. About this time western medical books began to be read by some Japanese and Chinese doctors, and some of the keener Japanese actually dissected dead bodies in order to ascertain if the organs of their nationals were the same as those depicted in the western books. In 1874, modern medicine was officially adopted by the Japanese government and since then rapid progress has been made. China did not adopt modern medicine until 1915.

In Japan today there are over 50,000 men and women on the medical register educated along

modern lines and ranking second to none in the world. The masses have learned that it pays to consult the doctor trained in the modern way. There are no more herbalists. In China the majority of practitioners consist of the old-style herb doctors, pulse feelers and smooth-tongued quacks. The great mass of the Chinese people are not yet convinced of the great value of the new discoveries in medicine and surgery.

So long as China continues to refuse the benefits of medical science so long will her people continue to succumb by the tens of thousands to epidemic disease and to be a danger to the rest of the world. J. M. D.

"PATENT MEDICINE" ADVERTISING

ADVERTISING is the life blood of the "patent medicine" industry. It always has been. More than 200 years ago Addison, in moralizing on the subject, said, in the *Spectator:* "Had all these advertisers arrived to that skill they pretend to, they would have had no need for so many years successively to publish to the world the place of their abode and the virtues of their medicines."

But advertising in 1926 differs vastly from advertising in 1700. The advertisement of today is unlike the advertisement of a few generations ago not only in its appeal but in its intent. In those days advertising was mainly a means of notifying the public where and how its demands might be supplied. The advertiser of today is not satisfied with, and under modern business conditions cannot afford to be satisfied with, the mere supplying of a demand. He goes out to create demand. An advertising agency, in attempting to get additional clients, sent out a circular in which it said:

> "It would be a liberal estimate to say that only 25 per cent of the business transacted in this country each day is done as the result of a 'natural demand.' The other 75 per cent is done as a result of salesmanship in one form or another—and it's on the 75 per cent that we make our living and you make yours."

Modern advertising may be said to be the art of awakening in the public a desire for things that it otherwise might not even know about. It is this changed conception of the field of advertising that makes the "patent medicine" business the menace to the public health that it is. For it means that the maker of a nostrum must, for competitive reasons, stimulate the sale of his preparation by working on the fears and imagination of the public. The seller of a kidney pill is not satisfied merely with selling his product to those who are already convinced that they have kidney disease; he goes into the advertising field with the object of convincing every person who has a soreness in the lower part of the back that he is suffering from diseased kidneys! The "patent medicine" maker will not, of course, admit that such tactics are part of his selling scheme, at least it is unusual to have him admit it. But occasionally there is a burst of frankness.

A few years ago one manufacturer, in urging druggists to stock his "cure" for appendicitis, presumably thinking that he could tell tales out of school, said that unless his product was put on the shelf the druggist would have nothing to sell "to the man who has appendicitis nor to the multitude who think they have or are going to have this dread disease." Elaborating, the manufacturer said further: "Fully 75 per cent of all cough and kidney remedies are bought by people who think they have consumption or some serious kidney ailment . . . and not by people who actually have them." Precisely! And it is the function of the "patent medicine" advertisement to play on the fears of those who are temporarily indisposed and to make them think they have this, that or the other disease, which can be cured by the panaceas offered.

It is this highly organized business of creating fear through suggestion that constitutes by far the worst feature of the nostrum industry. State and federal laws have done something to lessen the direct damage that may be done by nostrums, although there are still "patent medicines" that contain dangerous and habit-forming drugs. But little has been done to curb the nation-wide business of creating hypochondriacs and drug-swillers. A. J. C.

HEROES OF MEDICINE—LOUIS PASTEUR

AMONG the greatest of the names associated with the progress of medical science is that of Louis Pasteur, whose portrait is the frontispiece of this issue of HYGEIA.

Pasteur was born in 1822, the son of a French tanner. He did not study medicine and never earned a medical degree in any course. Nevertheless, by a series of experiments he proved that germs are the causative factors in disease, and that it is best to build up in human beings increased resistance against disease caused by bacterial organisms.

To Pasteur must be assigned the credit for determining the cause of hydrophobia and the method of inoculation against it, for the discovery of protective vaccine against anthrax, and for inaugurating the series of studies that resulted eventually in a protective antitoxin against diphtheria. He was the founder of bacteriology, a great man and a great scientist.

Jack's cottage was tucked so far under an overhanging cliff that the giant could not hit it.

The Giant on the Hill

A Health Story Patterned on "Jack and the Beanstalk"

By

Blanche J. Dearborn

ONCE upon a time long, long ago, a giant lived at the top of a high mountain. One day he had nothing to do and that, I suppose, is how he happened to get into mischief.

Just for fun the giant started throwing rocks down into the valley. It so pleased him to see the people run and jump and to see the big rocks crash through the roofs of the houses that he never stopped until he had destroyed every house in the valley and every one had had to take his household goods and move away; that is, every one except Jack and his mother. Their cottage was tucked so far away under an overhanging cliff that, try as he would, the giant could not hit it.

One day Jack said, "Mother, I am going up to the giant's country to find out what makes him so big and strong."

"Oh no, no," cried his mother, "you must not. He will surely kill you and I should be alone. You must not think of it."

"But, mother," said Jack, "if I don't go he will soon find out he can never hit our cottage and then he will come down here to destroy us. I had better go than to have that happen. I will be very careful."

So Jack's mother consented, and the next morning very early he started to climb the mountain.

Jack climbed all day long and just at nightfall he came to the giant's house, so wearied he could scarcely stand. He knocked at the door, and an old woman opened it a tiny crack.

"Go away, go away, quickly," she said. "If the giant finds you here he will kill you."

"Oh, kind lady," said Jack, "I am but a little boy, and I am so tired I cannot take another step. Hide me tonight, and I will leave early in the morning."

Just then there was such a heavy step that the very earth shook.

"Quick, quick, into the cupboard. The giant is coming," cried the old woman.

Jack jumped into the cupboard and closed the door just in time, for at that very second the giant came striding in. He opened a door in the side of the house and called, "Come, my pretties, come," and in came a dozen big white hens. The giant petted and patted them and then said:

"Lay me my eggs, round and long,
That I may keep both well and strong."

And on the floor lay twelve big white eggs.

The little old woman came in and picked all the eggs from the floor and drove the hens out of the door. Then she took the eggs into the kitchen. Soon she came back and set a big dish of cooked eggs on the table, and the giant drew up his chair and began to eat.

After the giant had finished his supper, he went to bed. While he was undressing, Jack heard him muttering to himself:

"Early to bed is good for all,
It made me grow almost 9 feet tall."

Soon he was in bed and snoring so loudly that all the eggshells on the table began to dance a jig.

Then Jack crept out of the cupboard and to the door through which the hens had gone. He opened it softly and ran into the yard. He could easily see the hens sitting on their roosts, because they were so white, and, putting a hen under each arm, he clambered over the fence and away he ran for home.

Jack reached home just at breakfast time, and his mother was sitting in her chair crying because she feared he had been killed. Jack put the two hens on the table and said:

"Lay me my eggs, round and long,
That I may grow both big and strong."

In a second two big eggs dropped on the table.

"Here, mother," said Jack, "cook these eggs for our breakfast."

Jack's mother did so and when they had eaten them, Jack said, "I never felt so well in my life." And his mother said, "I feel rested although I sat up all night."

Every day after that Jack and his mother ate a big fresh egg for their breakfast, and Jack always remembered to go to bed early. He could see that he was growing both bigger and stronger.

One day Jack said: "I am going to see the giant again. Perhaps I shall find something else that will be good for us to eat."

This time he was so much larger and stronger that he reached the giant's house before dinner. He knocked on the door as before, but the old woman did not recognize him, because he had grown so much, and she refused to let him in. She said: "Not long ago I let in a little boy and he took two of the giant's hens. He has been dreadfully cross ever since, and I would not dare to open the door for you."

Jack put his hand in his pocket and brought out a silver backed mirror and handed it to the old woman. She was so delighted that she opened the door for him. Just as Jack stepped over the threshold they heard the tramp, tramp of the giant's footsteps. "Quick, quick," said the old woman. "The giant is coming for his dinner. You must hide." Jack had grown so big he could not hide in the cupboard, but just in time the old woman pushed him into a closet and there he stayed.

The giant threw a big bag down on the table. "Old woman," he yelled, "make me my dinner." When the old woman came in to pick up the bag the giant began to sing in a voice that rattled the dishes:

"Cook me my carrots, as yellow as gold,
That I may grow wise, but never grow old."

By opening the door a crack Jack could see the old woman take some long yellow vegetables from the bag and go into the kitchen. Then such a tantalizing odor filled the air that Jack could hardly keep still. Soon the old woman set a huge dish filled with the carrots in front of the giant, and he ate them all.

After that he sat down in his big easy chair and began to mumble and grumble to himself and Jack could just make out the words:

"After each meal, do not run and scurry;
Sit down and think and don't be in a hurry."

The giant kept so still that he grew sleepy and soon he was snoring so loudly that the carrots in the bag began to bump against one another. Then Jack crept from the closet and, seizing the bag of carrots, ran away home.

The next day Jack said, "We will have some of the giant's carrots for dinner." He said the rhyme just as the giant had said it:

"Cook me my carrots, as yellow as gold,
That I may grow wise, but never grow old."

Jack jumped into the cupboard and closed the door just in time.

The giant came tramping in leading a large black cow.

When the carrots were done Jack and his mother sat down to eat and never had they had a more delicious dinner. After that every day each had an egg for breakfast and carrots for dinner and Jack always remembered to go to bed early and not to run and jump just after he had eaten. Jack grew so fast that he had to have new clothes made.

Some time afterward, Jack said, "I am going to the giant's house again," and his mother made no objections. She went out to the garden and, gathering her choicest roses and lilies, she crushed them to make a wonderful perfume. This she put in a crystal bottle for Jack to give to the old lady.

Jack started very early in the morning as before and the journey seemed as nothing, so that he reached the giant's house before breakfast. When he knocked at the door the old woman was dreadfully frightened. She said, "The giant has just stepped out to get his cow; he will be back any minute, and you must not come in."

Jack uncorked his bottle of perfume and held it out to her. When she smelled it she forgot everything else and allowed Jack to step into the house. He had no more than closed the door before he heard the giant's tread.

"Quick, quick, into the closet," cried the old woman, but Jack had grown so big he could not get into the closet. Just in time he rolled under the giant's own bed, and there he was completely hidden.

The giant came tramping in leading a large black cow. He handed a big pail to the old woman and said:

"Milk me my cow,
Fill the pail to the brim.
For when I drink milk,
I am chock-full of vim."

The old woman sat down to the cow and tinkle, tinkle went the milk into the pail. Soon it was full to the brim with foamy white milk, and the old woman put the pail on the floor while she went to fix the giant's fruit for his breakfast.

As soon as the old woman was out of sight, Jack sprang from under the bed and lifting the pail of milk drank till he could not drink another drop. As he drank he could feel vim flowing in his veins, and he said, "I am not going to hide from the giant. I am not afraid of him."

He took the cow by the rope and said, "Come along here, bossy," but the cow did not come.

Just then the giant appeared at the door with his face dripping wet, for he had been washing himself at the well. When he saw Jack and the partly empty pail of milk he was terribly angry.

"So it was you that stole my hens and my carrots and now you would take my cow," he roared and he started for Jack.

Jack was not at all afraid, and they began to fight. Of course Jack was not nearly as big as the giant, but he was younger and quicker, for the giant was lazy and had not been exercising lately. Soon he began to grow tired and to pant for breath, while Jack was still fresh.

It was not long before the giant said: "I can't fight any more. I suppose you will make me go away and leave my home where I have lived all my life." And he began to cry.

When Jack told the giant he need not leave his home if he would come down and pick up all the stones he had thrown into the valley, the giant said he would start to work that very day. So he and Jack went down into the valley together, and the giant found it was not half as much fun to pick up the stones as it was to throw them down.

After the stones were all picked up, he had to help put new roofs on the houses and that kept him so busy he did not have time to get into mischief again.

By and by the giant and the people became such good friends that they visited back and forth together, and they all lived happy forever after. But Jack and all the other children never forgot to eat plenty of carrots and eggs and to drink milk three times a day, and always, always to go to bed early.

New Books *on* Health

Reviews of Interest to General Reader, Parent and Teacher

HEALTH THROUGH PREVENTION AND CONTROL OF DISEASES

By Thomas D. Wood and Hugh Grant Rowell. Cloth. Pp. 122. Price, $1.00. World Book Company, Chicago, 1925.

WHEN it is realized that the school, like any other institution in which large numbers of persons assemble, may act as a distributer of disease, it should also be understood that the school may be a center for health education. The happiness of the child depends just as much on the prevention of infectious diseases as on the lessons in arithmetic and reading that are given to him.

Drs. Wood and Rowell, who have long been associated with problems on health education, have prepared for the use of parents and teachers and, indeed, all associated with health education a brief manual of essential facts and of the routine to be followed in the control of communicable diseases in schools. Their booklet contains much elementary information concerning these diseases, forms to be used in dismissing and quarantining children, the rules followed by most health departments in controlling these diseases, and simple procedures for first aid treatment. The final section supplies answers to questions that parents may ask relative to vaccination, the Schick test and similar subjects, and a number of definitions of considerable service. M. F.

THE PROSTATE GLAND

By Chester T. Stone. Cloth. Pp. 109, with 2 drawings by the author. Price, $1.50. Allen Ross and Company, New York, 1926.

THE man approaching middle age and after inevitably must become interested in the prostate gland. To meet that interest this author has prepared an outline of present knowledge on the subject, written unfortunately in part in language that makes no attempt at meeting the public's average knowledge. Indeed, the style frequently is not even good English. The person with inflammation of the prostate is characterized as a prostatic.

Perhaps the best chapters in the book are "When Is a Man Old?" and "Quackery." These are written in straightforward language and are easily understood by any one. The final chapter on the routine of sexual life is also easily understandable and is essentially sound. If the author had been able to make his presentation on the anatomy and function of the sex organs as simple as those chapters dealing with advice, he would have accomplished much more for the benefit of his prospective readers. M. F.

HEALTH AND SUCCESS AND HEALTH AND GOOD CITIZENSHIP

HEALTH AND SUCCESS. By J. Mace Andress and W. A. Evans. Cloth. Pp. 263. Illustrated. Price, 76 cents. Ginn and Company, Boston, 1926.

HEALTH AND GOOD CITIZENSHIP. By J. Mace Andress and W. A. Evans. Cloth. Pp. 391. Illustrated. Ginn and Company, Boston, 1926.

IN PREPARING the book "Health and Success" the authors recognized that the first formal textbooks on health for children should contain the facts about health so as to satisfy their normal curiosity and to permit them to practice intelligently a proper personal hygiene. This book therefore emphasizes healthful habits, knowledge and ideals.

The volume is printed in large type on good paper; it is fully illustrated with excellent photographs and with a colored frontispiece that is in itself an inspiration. Each chapter is accompanied by a number of health aphorisms, a series of health habits, a list of things to do for health and a number of review questions that will cause the boys and girls to reemphasize in their own minds some of the interesting points that are developed.

The tooth brush illustrated in the text is not the type now recommended by the majority of those who give special attention to this subject. The tooth brush drill is a performance that might well be placed in the discard because it is of itself unhygienic. The child should not be asked to bring his tooth brush to school and to undertake drills with a device that is not hygienically kept. The sections on drugs and alcohol are preachments on prohibition rather than attempts to present the scientific facts concerning these products.

The volume "Health and Good Citizenship" is planned for older boys and girls, repeating some of the material but covering the growth of the body in greater detail and reaching some of the social aspects of hygiene in addition to covering individual hygiene. HYGEIA appreciates the fact that the authors have utilized some of its material both in the text and in some of the illustrations. The chapters explaining the government's relationship to health and the periodic physical examination indicate that the citizens of the future will be far more enlightened in regard to the care of the body than are those of today. M. F.

CARE OF THE SKIN IN HEALTH

By Herman Goodman. Cloth. Pp. 99. Price, $2. Medical Lay Press, New York, 1926.

THE various articles on the care of the skin and hair by Dr. Herman Goodman which have appeared in HYGEIA may be taken as adequate warrant of his ability to state the facts in a simple manner and accurately. The material in many of these articles, together with additional subject matter, has now been collected and published in a small handbook, so as to be constantly available for those who wish to have a reference of this kind in permanent form.

Among the subjects discussed are such constantly interesting topics as the general care of the skin and hair, freckles, poison ivy, cosmetics and the various aspects of the diagnosis and treatment of syphilis. The information given is in accord with the most generally accepted opinions at this time. It is, therefore, exceedingly helpful. M. F.

News *and* Views *from the Field of Health*

SOME MEN WEAR EVENING FACES

Many men wear a 5 o'clock sign, according to a recent article in the *Revue médicale de la Suisse Romande*. The psychiatrist feels sorry for this type of person, who does not really begin to live until 5 in the evening, and calls him a neurotic.

He is known to all of us, the everyday sort of man, a bit grouchy on arising in the morning, silent during breakfast, silent and brusk at his work, resenting the smiles of associates and the orderliness of his office. Those under him are afraid of him; there seems to be no way to please him and he is called a slave driver, though many praise him for his efficient ways.

But at 5 in the afternoon he dons his evening face and becomes a Prince Charming, ready with a smile for any and every proposal that is made. His mental machinery runs smoothly at this hour and his poise is unshakable.

OPEN HEALTH CENTER IN NEW YORK

A model health center has been opened on the lower east side in New York City for the purpose of promoting health in this congested district, where the mortality rates are 33 per cent higher than the average for the rest of the city.

The Milbank Memorial Fund, the department of health of the city of New York and a number of other social and public health agencies are cooperating in this project, which is known as the Bellevue-Yorkville Health Demonstration.

TIME LOST IN DUTCH INDUSTRIES

Miners in the Netherlands lose the most time on account of sickness, according to a report in *The Journal* of the American Medical Association. The average number of days lost during the three years 1923, 1924 and 1925 was 17.03 for miners and only 7.86 for weavers, the next highest. Woodworkers and metallurgists lost a little over 7 days, farmers about 6, and tailors and shoemakers from 5 to 6 days.

WOODEN LEGS IN AUTOMOBILE ACCIDENTS

In a recent automobile collision in Chicago in which four persons were injured, the police found that one of the drivers had two wooden legs, reports *The Journal* of the American Medical Association. Among the great crowd of persons driving automobiles have been found some with glass eyes, deaf ears, paralyzed limbs and all sorts of mental defects.

With the number of persons killed in automobile accidents this year exceeding the 22,500 persons reported killed from such causes last year, *The Journal* asks why automobilists generally should not be examined and found fit before being granted drivers' licenses.

SKIN DISEASE AFFECTS GARDENERS

The barberry shrub, which enjoys world-wide popularity as a decorative border for gardens, has been implicated as the source of a skin disease called sporotrichosis, according to a recent article in *The Journal* of the American Medical Association.

The disease is most prevalent among nurserymen, gardeners and agricultural workers, though it has been found in children and adults not professionally engaged in gardening.

The barberry is the host for the fungus causing this disease. The fungus enters the body through breaks in the skin, usually those caused by pricks and scratches from the long, sharp thorns of the shrub. The infection frequently begins on the extremities, though it later becomes generalized.

Other sources of infection have been noted, among them fertilizer, but the barberry shrub leads in the number of cases traced to it. The period of disability is five months.

DEAF-BLIND GIRL GETS DIPLOMA

The achievement of a deaf-blind girl, who recently received a diploma from a New Jersey grammar school, is considered unique in that she is the only deaf-blind person to attend a public school so far as is known, says the *Newark School Bulletin*.

This child had been deaf and blind since the age of 7 years. She had been taught at home to read the embossed print for the blind, to use an arithmetic slate, a Hall-Braille writer and an ordinary typewriter and to do handwork. At the age of 15 she entered a class for the blind in a Newark grammar school, where she remained for six and one-half years, when she received her diploma. Part of the time her attendance was irregular, owing to poor health. Her education has required much time and attention from the teachers, but the results have been most gratifying, according to the report.

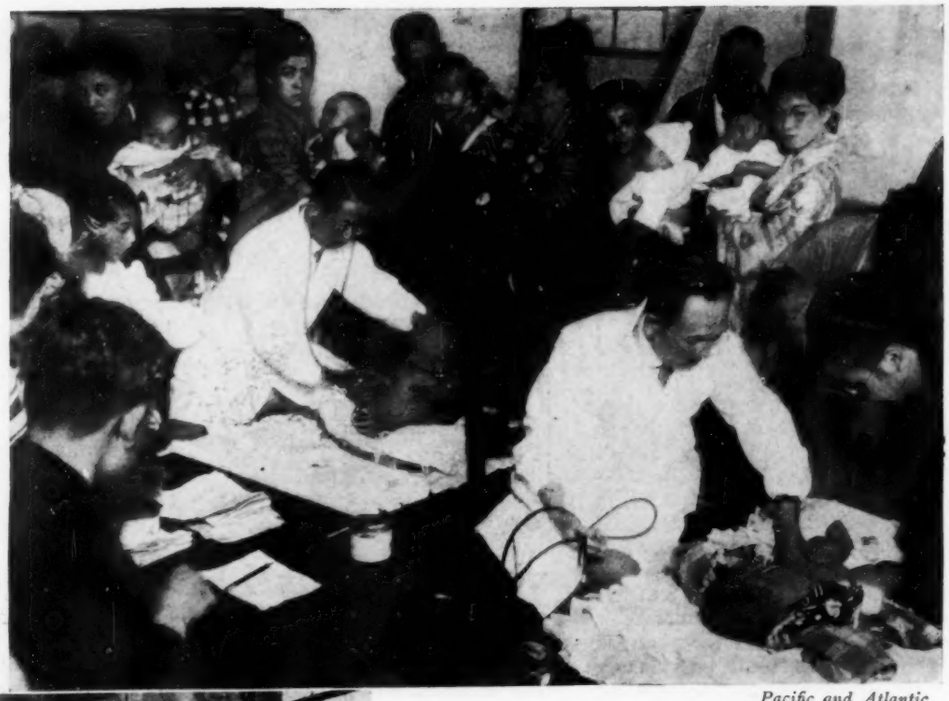
SMALLPOX FATALITY HIGH IN 1926

The number of deaths from smallpox was above the average in eighteen states and several Canadian provinces during the first half of 1926. The total number of cases reached 20,561. The large numbers of unvaccinated persons both in the United States and Canada, from statistics of the Metropolitan Life Insurance Company, provide ample material for a smallpox situation that may at any time lead to catastrophe, according to *Science*. Vaccination and revaccination throughout both countries is necessary to prevent disaster.

ADD TO HALL OF HEALTH EXHIBIT

A dental exhibit and an exhibit dealing with the transmission of disease by rodents have just been added to the Hall of Health of the U. S. National Museum, described in a recent issue of HYGEIA. The dental exhibit was completed by the American Dental Association. The bureau of biologic survey of the U. S. Department of Agriculture prepared the other exhibit.

JAP BABIES ARE EXAMINED AT A BABY SHOW IN TOKYO and their mothers are shown how to care for them.



Pacific and Atlantic

Pacific and Atlantic

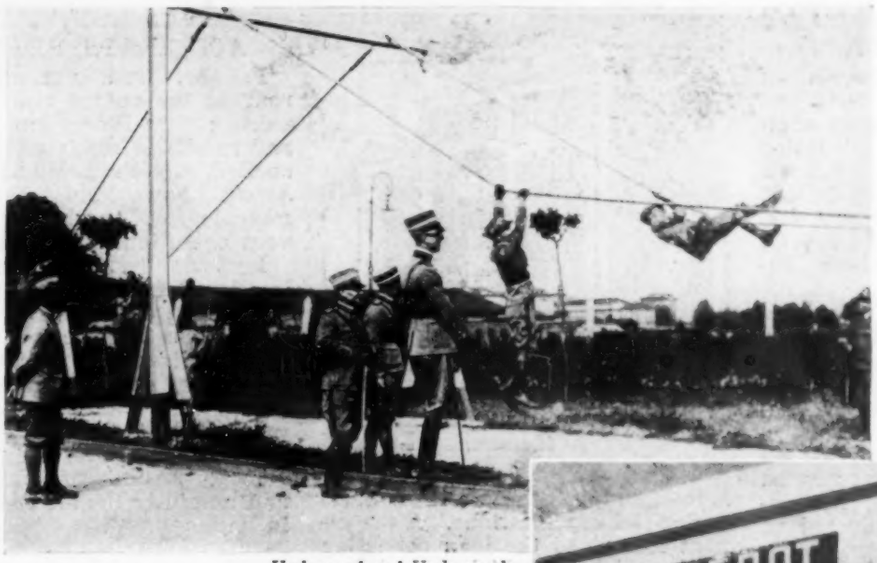
WORK FOR HOSPITAL FUND

Nurses of St. Bartholomew's Hospital, London, used this giant nurse, 28 feet high, to help solicit funds for the hospital.

Pacific and Atlantic

TRAFFIC FLAGS AID BLIND

When a blind person in Brussels, Belgium, wishes to cross the street, he waves his small green and red flag to summon aid from the gendarmes or the public.



Underwood and Underwood

PRACTICE FOR MOUNTAIN CLIMBING

Crown Prince Umberto of Italy, the tall officer at the right, is watching men of his regiment going through gymnastic drill in training for the mountain climbing which is one of their duties.

Underwood and Underwood

TEST MOTORMEN OF PARIS

Applicants for positions as motormen in Paris are tested on this special platform to find their reactions to stop signals.

Underwood and Underwood

CHAMPION OF WORLD'S OARSMEN IS NOW TRAINING to defend his title with this new shell.

SAFETY METHODS USED AT AUTOMOBILE FACTORY

A thorough, systematic inspection of all departments every week has been an important factor in accident prevention at the Buick Motor Company plant, where accidents and deaths have been reduced about 50 per cent in the last two years, according to an article in *Safety*, publication of the American Museum of Safety.

A schedule for every day has been made, thus giving the inspector something definite to look for. Of course, any hazards that were noticed apart from the day's program received attention at once. A report on eye accidents is issued monthly, so that conditions may be investigated and corrected. An educational campaign is conducted all the time by means of bulletin boards and the plant publication.

WORKERS PROTECTED BY DUSTPROOF MASKS

A new type of mask, designed to protect from dust workers in boiler cleaning, sand blasting, paint spraying and similar occupations, is now being exhibited by the American Museum of Safety.

The mask provides in a single unit protection for eyes, nose, mouth and ears. The metal parts may be detached from the hood and washed or sterilized and the hood laundered as often as necessary. This affords complete sanitary safety. Another important safety feature is that the lenses for the eyes are of laminated, nonshatterable glass, which can withstand the strain of flying particles of metal, glass or stone. There is also a special respirator and filter cup.

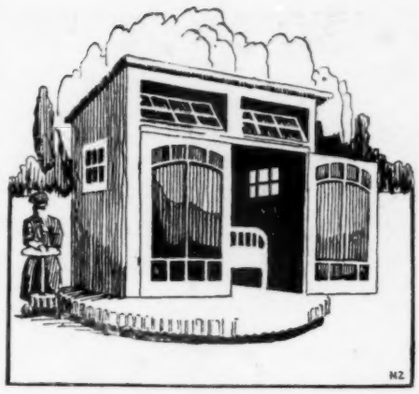
FIGHTING TUBERCULOSIS IN HOLLAND

Night-and-day sanatoriums are being used in Holland for patients recovering from tuberculosis and those threatened with the disease, reports Cornelia Van Kooy in the *Journal of the Outdoor Life*.

The proper care of such persons on the borderline who must work during the day has always been a problem, numerous breakdowns marking the path of patients who have left institutions and reentered industrial life.

Patients in these night-and-day sanatoriums come to them from work, have supper there and go to bed at an early hour. In the morning they are given breakfast before going to work. During the day the sanatoriums are used for people who are not employed.

The tuberculosis work is carried on by district units called Green Cross organizations, which give service of all kinds, including the loan of supplies to both individuals and social organizations. A prominent feature of the loan collection is the "lighal," which is a living porch, closed on three sides and built on a pivot so that it can be turned toward or away from the sun as the patient desires or requires. It is used in some communities as a day sanatorium. A small "lighal," just large enough to contain reclining chair, table and bookstand, is used by individual patients in their own back yards.



The "lighal" may be turned to the sun.

TENSE MUSCLES AID THINKING

That screwing up the face or otherwise drawing the muscles tense in an effort to solve a problem or concentrate on a mental task is more useful than might be thought, may be concluded from recent experiments at the University of Chicago, results of which showed that a person's mental power is greater when the muscles are tense than when he works in a relaxed state.

The students on whom the tests were made learned series of nonsense syllables and added columns of digits, part of the time exerting a constant grip of 11 pounds and part of the time in a relaxed state. Both speed and accuracy increased when the students worked on a tension, reports Prof. Arthur G. Bills of the department of psychology.

RHEUMATISM A WORLD PROBLEM

The high cost of rheumatism and its wide distribution have made it an international problem, according to the American Medical Association. At present this disease costs the world as much as tuberculosis in loss of wages and labor.

The economic aspects have resulted in the organization, by an association of physicians in the Netherlands, of an international society to study and combat rheumatism.

VENTILATION, FATIGUE, ACCIDENTS RELATED

Fatigue, from various sources, reduces the output and quality of work, causes illness and accidents, and results in much material being spoiled, says Dr. Leland E. Cofer in *Safety*. Some hold that fatigue is muscular, others that it is a nervous condition.

Improper ventilation is blamed by Dr. Cofer for causing a large proportion of fatigue among workers. It has been demonstrated that heat and humidity together tend to raise the body temperature and make the worker nervous, thus increasing the chance of accidents and diminishing his efficiency. Besides reducing the heat and humidity the air should be put in motion.

RURAL SANITATION A CITY PROBLEM

The problem of rural sanitation concerns the city dweller as much as his suburban neighbor or country cousin, observes a bulletin from the New Jersey state health department. The city's supply of water, milk and green vegetables usually comes from the country and is affected by rural sanitary conditions.

When the city dweller goes into the country on his vacation he is mightily interested in the sanitary conditions he will find. Likewise, when rural inhabitants come to the city for shopping or amusement they bring with them any disease germs that they may be harboring as a result of insanitary conditions at home.

HANDLING SCARLET FEVER CONTACTS

When young Tommy contracts scarlet fever, what shall be done with his small sister Mary? Every mother knows how nearly impossible it is to keep a well child and a sick child apart in the average small house or apartment. One way of solving the problem is to send Tommy to the hospital and keep Mary at home. However, this is not always convenient or even possible. Then, Mary may go to stay at the home of some adult friend where there are no children, or she may remain at home with Tommy.

If she is under 11 years and remains at home, she is 142 times as likely to get scarlet fever as if she goes to the friend's home. It is dangerous to let child contacts to scarlet fever stay at home with the patient, concludes the Detroit health department in a review of a recent study made on the subject. Such contacts should be removed to the adult friend's home where there are no children.

Questions *and* Answers

If you have a question relating to health, write to "Questions and Answers," HYGEIA, enclosing a two-cent stamp. Questions are submitted to recognized authorities in the several branches of medicine. Diagnoses in individual cases are not attempted nor is treatment prescribed.

Warts

To the Editor:—How should warts be treated?

B. A. C., Ohio.

Answer.—Warts may be removed in a variety of ways, by electric current, by freezing with carbonic acid snow, by the x-ray, and sometimes by use of acids.

One who is afflicted with warts should consult a good physician, as the best remedy to be used in his particular case depends on the conditions present.

Schick Test

To the Editor:—What is the Schick test for diphtheria?

G. M., Minnesota.

Answer.—The Schick test is a method of determining whether a person is immune to diphtheria. It is conducted by injecting between the layers of the skin of the forearm a minute quantity of the toxin of diphtheria.

If the person being tested is immune from diphtheria, the protective antitoxin in his system neutralizes the toxin thus applied and, as a rule, little change is noted in the skin. If, however, there is a lack of or deficiency in the amount of antitoxin in the system, there occurs in from twenty-four to seventy-two hours an area of redness around the point of the injection, which gradually extends. This fades in from seven to twenty-one days, leaving only a brownish stain with some scaling of the skin.

Persons who are shown by this test not to be immune to diphtheria ought to be inoculated with toxin-antitoxin, which is given in three doses at intervals of a week and which usually affords protection, in most cases for many years.

Mercurochrome and Iodine

To the Editor:—Is mercurochrome as effective as iodine as a germicidal agent in treating wounds?

J. S., Illinois.

Answer.—There is little choice between mercurochrome and iodine as a local application for wounds. For burns and for wounds in children, tincture of iodine is objectionable because it smarts.

Bulgarian Buttermilk

To the Editor:—Is Bulgarian buttermilk easily digested? Will it clog the arteries and cause old age deposits all over the body? Is it a perfectly balanced food? Will two quarts a day hurt any one? Ordinary churned buttermilk cannot be had conveniently in the city in which I live.

Answer.—Bulgarian buttermilk is as wholesome as ordinary buttermilk.

Buttermilk is easily digested. It will not clog the arteries. It is not a perfectly balanced food, because the fat has been removed and, therefore, it should be taken with other foods. Two quarts a day will not be harmful.

X-Ray Pictures

To the Editor:—In case of fractures can an x-ray picture be depended on to show the fracture when two or more films are taken? When an x-ray picture of the teeth is taken would a necrotic condition of the jaw above a tooth showing the root canal filling be seen? Can one expect x-ray plates to show misplaced bones of the spine and twisted ribs? Can you suggest a good book on x-ray suitable for a layman to read?

R. A. E., Indiana.

Answer.—As a rule, x-ray plates if properly taken in at least two planes give accurate information in reference to fractures. This is assuming that the pictures are taken and examined by an expert.

A necrotic condition of the jaw above a tooth would show in an x-ray picture, as would misplaced bones of the spine and twisted ribs.

We know of no satisfactory book for the public on the medical use of the x-ray. In the last issue of HYGEIA appears a lucid article on x-rays.

Harelip and Cleft Palate

To the Editor:—At what age is it best to have harelip and cleft palate correction?

J. V., New Hampshire.

Answer.—Preferably this defect should be corrected within a few weeks after birth, and most certainly within the first two or three years, provided the child is in good health.

Fumigation

To the Editor:—When is fumigation of houses necessary and advisable? After what diseases and for how long after the patient has been removed or become well? What is the known length of life of the different disease germs outside the body?

E. V., Indiana.

Answer.—Fumigation of houses is seldom done. The health department of Chicago fumigates only after certain insect borne diseases, especially typhus fever, which is transmitted by the louse. This fumigation is done with sulphur. It might exceptionally be done when bedbugs and other animal pests were suspected of being implicated in disease transmission.

We cannot give detailed information as to how long the different germs live outside of the body. Most of them, when exposed to sunlight and air, die promptly. The germs of tetanus, or lockjaw, may live a long time in the soil.

Scrofula

To the Editor:—Is scrofula a blood disease? What causes it? How do you get rid of it?

G. F. H., Oklahoma.

Answer.—Scrofula is a much used and abused term and, like the term rheumatism, once covered a number of different conditions. It has been largely abandoned by medical men for words of more accurate definition.

In its usual meaning, the term scrofula denotes a swelling of the lymphatic glands. It is not a blood disease but is caused by an infection in the lymphatic glands from a number of sources. Usually the glandular swelling is due to tuberculosis.

Of course, the nature of the swelling can be definitely determined

only by one who has seen and examined it. The Pirquet or skin test for tuberculosis can be made by a physician easily and painlessly.

Deafness Devices

To the Editor:—My mother, who is 72 years old, is gradually getting deafer as she grows older. Her doctor says there is nothing in the way of an operation that can help her. Would you kindly give me the names and addresses of one or two of the instruments you consider the best for people thus afflicted?

H. J., Wisconsin.

Answer.—There are numerous devices for use by the deaf, but the kind of appliance suitable for one deaf person is not suited for another. The only way, therefore, in which one can determine the best appliance is by seeking the advice of a physician who has examined the deaf person and knows the kind of deafness and types of appliances.

A great many kinds of apparatus are advertised for the deaf. Many of these have been examined by the Bureau of Investigation of the American Medical Association and found to be worthless. These are described in a pamphlet entitled "Deafness Cures," which can be obtained from the American Medical Association.

Hives

To the Editor:—What is the cause of hives in a woman aged 55? Is it possible to suggest any general diet that is suitable for one with hives? Is this a blood disease?

W. F. M., Maryland.

Answer.—It is not possible, without careful study and trial, to determine the cause of hives.

Most commonly, hives are the result of some article of diet that is obnoxious to the particular person. Many persons are affected by oysters and other shell fish, by strawberries or by eggs. Much the same kind of foods that produce asthma in certain persons results in hives in others. It is therefore not possible to suggest any general diet that is suitable for one with hives. It cannot be called a blood disease.

Yeast; Saccharin

To the Editor:—Is the use of yeast ever injurious? Is dry yeast as beneficial as compressed yeast? Is the moderate use of saccharin for sweetening in place of sugar ever injurious?

W. S. S., West Virginia.

Answer.—Although yeast in excessive amounts might possibly be harmful, no cases are published reporting damage from its use. The liquid brewer's yeast is probably richer in vitamin content than dry yeast. Compressed yeast is simply the brewer's yeast with most of the water removed and is usually fresher than dry yeast.

The referee board of food inspectors in a recent decision stated that the continued use of saccharin (gluside) for a long time in quantities of more than 4½ grains a day, and especially of more than 15 grains a day, is liable to impair digestion. For sweetening coffee or other beverages or food so large a quantity is seldom necessary.

Sleeping after Eating

To the Editor:—Is it harmful for one to lie down and sleep right after a meal? I always put the baby to bed immediately after her 10 a. m. and 6 p. m. feedings. At these times she gets oatmeal, bread and milk.

A. M. G., Wisconsin.

Answer.—It is not harmful for one to lie down immediately after a meal, or for an infant to be put to bed after feeding. Some adults feel that light exercise, like walking after eating, promotes digestion, and when this is the case it is the better practice.

Reducing

To the Editor:—How can one reduce the size of the legs and the buttocks, which are overfat compared with the rest of the body? Is there anything better than wearing a tight girdle to prevent the buttocks from shaking when one walks? Is rolling the stockings injurious to the circulation?

F. L. M., Wisconsin.

Answer.—There is no satisfactory method of reducing the size of particular parts of the body apart from general reduction of weight.

The wearing of a girdle, not too tight, would not be harmful.

Rolling the stockings down might interfere with the flow of blood if it constricted the legs, as do the old-fashioned garters; otherwise not.

Goiter

To the Editor:—When a girl of 17 develops a simple goiter caused by lack of iodine and the goiter responds promptly by decreasing in size through the iodine and tonic treatment given her by the physician, is it probable that a perfect cure can be effected and that the gland will return to normal size? Treatment was started promptly and within a few days the goiter had receded.

E. B. J., New York.

Answer.—In many instances iodine and tonic treatment, if intelligently used, may be expected to help control a simple goiter in a girl of 17. By simple goiter one means, of course, a growth in size due to increase of the normal substance of the gland without tumors.

The only difficulty involved is that incident to making a definite anatomic diagnosis. Iodine may be tried in every case, but only on the advice and under the careful supervision of a physician.

Probably a truly adenomatous (true tumor) goiter, no matter of what variety, will in the course of time (probably in the third or fourth decade of life) cause some of the following characteristic manifestations: damage to the heart, poisoning by thyroid secretion, or, in a few instances, malignancy.

Cod Liver Oil

To the Editor:—Is there a cod liver oil tolerance test? I feel sure that cod liver oil does not agree with my 3 year old son, yet I think that he should have it. The only evidence I have that cod liver oil does not agree with him is simply that he has a fever and feels generally not so well while he is taking it. During the weeks that I have stopped giving the oil to him, he seems to be all right. I started giving it to him again a week ago, and he has a slightly elevated temperature and seems listless. It is not necessary to force the child to take the oil. He is normal in weight and height and is out in the sunshine every day.

H. B., Pennsylvania.

Answer.—There is no cod liver oil tolerance test. Usually if cod liver oil disagrees at all it is because it is so distasteful that it is vomited or disturbs the appetite. It would be unusual for it to cause such an increase in temperature as is mentioned.

At the age of 3 years, a child ought not to need cod liver oil. If the diet contains plenty of fresh fruit, vegetables, milk and eggs and is otherwise well ordered, and if the boy has plenty of play time in the outdoors and exposure to sunlight, he should do very well without cod liver oil.

If at any time he seems not to be thriving, he should be examined by a competent physician.

Sulphurous Acid in Preserving

To the Editor:—Please tell me whether sulphurous acid used in preserving figs or any food has injurious effects. If so, what effect does it have?

L. G. MacK., Michigan.

Answer.—Sulphurous acid is used to preserve or decolorize fruits or other food materials. The law requires that fact to be stated on the label of the package containing such

foods. It is not probable that in the amounts ordinarily used sulphurous acid is injurious to health.

The principal objection to it, as in the case of benzoic acid, is that it may be used to prevent further deterioration of fruits already partially spoiled.

Falling of the Womb

To the Editor:—Do you think an operation for falling of the womb is the only treatment in all cases, or can a cure be effected through exercises taken to strengthen the muscles that should hold the womb in place? What do you think of appliances worn to hold the womb in position? The person suffering from this disorder is 58 years old.

V. H., Utah.

Answer.—In a patient of this age, when operation is relatively safe, no other method of correcting falling of the womb should be considered. As a rule, operations for the cure of prolapsed uterus are done from below, and thus, in many cases, an abdominal operation is avoided.

Exercises to strengthen the muscles are ineffective and disappointing. The wearing of appliances is irritating to the tissues and may produce a condition worse than the one for which they are employed.

Wen (Sebaceous Cyst)

To the Editor:—Can you tell me what will remove a wen or tumor without operation? I have a wen beside my ear, which is about the size of an olive. Is there anything that I can do to bring it to a head, for it runs and I can squeeze pus out of it every day.

R. J., Kentucky.

Answer.—If the trouble is a wen (sebaceous cyst), the only remedy is surgical removal. It is a simple and safe operation.

"Square Meal" for Child

To the Editor:—The article "A Square Meal" in the November HYGEIA raises some questions: What place in the diet, especially of small children, should be given the following: grapes, carrots, beets, cauliflower, cooked cabbage, yams, prunes and apples? What is meant by "a short time" for cooking green vegetables? What are the desirable green vegetables, other than spinach, for cooking?

F. G. T., District of Columbia.

Answer.—Carrots, beets, cauliflower, prunes and apples, if cooked soft, all have a real place in the dietary of even very small children (from ½ to 2 years of age). Some of them should be included every day. Cabbage and yams, though valuable for vitamin, energy and minerals, are less desirable, because of their tendency to gas formation. Grapes, as purchased, had better be used for older children because of the difficulty of eating them properly and the indigestibility of the skins.

All vegetables are best cooked only until soft and no longer. The time will vary with the type of vegetable. In this way there is a maximum digestibility with a minimum loss of vitamin, minerals and attractive appearance.

Beet greens, dandelion greens, green string beans, chard, asparagus, small green peas and Brussels sprouts are desirable green vegetables.

Death Caused by Egg Yolk?

To the Editor:—A Chautauqua lecturer in this town last summer said that if a person would eat an egg yolk while angry death would result. He also said that if a mother was badly frightened and allowed her child to nurse, the child would die. Is either case possible?

H. C. L., Indiana.

Answer.—There is no warrant for the superstition that eating an egg yolk while angry results in death. Violent emotion in the nursing mother does seem in exceptional cases to influence the secretion of milk but it is extremely improbable that the death of an infant was ever directly or indirectly caused thereby.

High Heels and Improperly Fitting Shoes

To the Editor:—What effect do improperly fitted shoes have on the general health, posture and efficiency of a person and also on his productiveness in industry? Should foot examinations be given to school children? Between what ages should such examination be given?

C. F. S., Nebraska.

Answer.—The term "improperly fitting shoes" is necessarily a large and unlimited order. An improperly fitted shoe may mean a short or a long shoe, a narrow or a wide one, an improperly shaped one or one with a combination of two or more bad qualities. Such shoes would naturally be uncomfortable to say the least and in their worst form quite disabling from their interference with the normal action of the feet.

It would be decidedly advantageous for school children to have their feet examined as soon after they enter school as is convenient. Examinations at intervals of a year thereafter would be of distinct value in protecting normal feet and in correcting abnormal ones at a time when such protection and correction would be most effective. The examination should be made by a thoroughly qualified physician trained in such work.

Sex Education

To the Editor:—In a recent issue of HYGEIA among books listed was mentioned one regarding life, how and when children should be taught. I have been unable to find it since, and am writing to ask what book you recommend for such a subject for a mothers' club.

J. S. S., Maine.

Answer.—We can recommend a book recently published by G. P. Putnam's Sons, New York, entitled "Parenthood and the Newer Psychology" written by Dr. Frank Howard Richardson. The price is $1.75.

Another good book is by B. C. Gruenberg entitled "Parents and Sex Education," published by American Social Hygiene Association, 370 Seventh Avenue, New York; price, $1.

Chlorine in Drinking Water

To the Editor:—Is the regular daily consumption of water to which a large amount of chlorine is added harmful? The chlorine in the water referred to is added in such quantities that the taste and odor are very objectionable.

M. S., New York.

Answer.—Chlorine in the amount ordinarily used to purify drinking water is not harmful. Rarely would a person drink water containing a sufficient amount of chlorine to be harmful, because the strong chlorine taste would be too disagreeable. It requires only a minute percentage of chlorine to make water safe.

Excess Fat

To the Editor:—Should I or should I not reduce? I am 5 feet, 5 inches tall, and weigh 145 pounds. I have a large frame, go in for sports, am 14 years old and healthy. As you see, I am above the highest allowance for my height, 138 pounds. Two years ago I weighed 170 pounds, and through exercising and dieting reduced to my present weight. If you think that I should reduce, please give me the number of calories I should take per day; 600 calories seems to be low even with the necessary grams of protein. K. M. F., New Jersey.

Answer.—At 170 pounds, the inquirer was certainly overweight, and it is possible that she is still a little too heavy. A dogmatic statement is impossible because of individual variations in bone and muscle mass. An examination of her own body may tell the girl whether she carries surplus fat in any place.

If not, a physician might decide. If she has excess fat, she should reduce it. If weight reduction would make the layer of subcutaneous fatty tissue thinner in her than in the average person, or if it would produce any loss of muscle tissue, she should not reduce.

There is no fixed number of calories to take for reducing. If one is active in sports and exercise, she could doubtless lose weight on a diet of from 70 to 100 Gm. protein, from 100 to 125 Gm. carbohydrate, and from 1,000 to 1,200 calories. It is improbable that she will need to take the trouble of weighing out a diet. Merely avoiding foods that are rich in fat and carbohydrate will almost certainly accomplish the purpose in this case.

Lordosis

To the Editor:—How can lordosis (forward curvature of the spine) be overcome?

E. S., Utah.

Answer.—This curvature can best be overcome by maintaining the best posture, by suitable exercises and, in extreme cases, by the use of appliances under surgical advice.

Asthma

To the Editor:—I have been troubled for some years with asthma and have been treated by physicians in several large cities. A doctor in a small town, formerly with the army, now tells me he has a drug that he thinks will be quite successful, especially since my asthma seems to be of a bronchial nature. He seems reticent to tell me what it is, and not wishing to urge him and having no other doctor near, I am writing to see if you could possibly guess at the remedy. It is introduced intravenously from a rather large syringe. It is not adrenaline and not cocaine. There are so many cure-alls for asthma; I wish to safeguard my general health, but I also wish to try any safe remedy that might help. He says he has used this for about eight years.

K. W., New York.

Answer.—It is not possible to determine the nature of the remedy that the physician has proposed.

Asthma is often rebellious and difficult to cure. Not infrequently it is due to some article of diet, and careful study of the case by an expert sometimes results in finding the particular article that offends and its removal from the diet results in relief from the asthma. This is true, however, in only a small percentage of cases.

The best suggestion is that if the inquirer feels that the remedies that he has tried are not satisfactory, he ask his physician to refer him to some physician who gives his attention exclusively to this class of diseases and has had a large experience in them.

Teething Ring

To the Editor:—What is your opinion of the value of a teething ring for a 14 months old baby?

A. M. G., Illinois.

Answer.—Teething rings are used to help force unerupted teeth through the gums. They are helpful if made of hard, smooth substances.

The main objection to their use is insanitation. Unless they are kept clean they may be the means of carrying infections into the mouth.

Probably a simpler and safer method of securing the same result can be obtained by a forceful massage of the gums over unerupted teeth with the ball of the finger. Of course the finger should be scrubbed thoroughly before it is introduced into the baby's mouth.

Athletic Mothers

To the Editor:—Is there any truth to the statement that athletic mothers have a more difficult time at childbirth than the non-athletic type?

A. G., Iowa.

Answer.—This statement is rarely true. Vigorous athletic women may bear children without any serious difficulty.

Tetanus and Rabies

To the Editor:—How long after the initial injury may tetanus develop? I want to know the longest time and also the shortest time. Please give the maximum and the minimum time for the development of rabies.

J. C. B., Indiana.

Answer.—Tetanus, or lockjaw, may develop any time up to several years after the initial injury. The shortest time known is about three days, during which time the tetanus bacilli multiply and elaborate enough of their toxin, or poison, to cause symptoms of the disease.

During the World War it was found that men who had sustained gunshot wounds and were given injections of antitetanus serum had to have secondary operations after the expiration of some time, chiefly for the removal of troublesome foreign bodies. After a lapse of as long as four years men sometimes developed tetanus from secondary operations. This is explained on the ground that a man may carry unrecognized tetanus without symptoms, to be stirred into action at a second operation or injury, years later.

The maximum and minimum time for the development of rabies, or hydrophobia, is a little more uncertain. Various animals differ in this regard.

In case of cats the symptoms appear in from two to four weeks after the animal is bitten or inoculated; in a horse from fifteen days to two months; in man the average incubation is about six weeks, but a period as short as five days has been observed and in some it has been as long as from seven to nine months or even longer. As a rule, the younger the patient the shorter the incubation period. A few cases have been reported in which the incubation extended over several years.

Death Defined

To the Editor:—I saw in a recent issue of a Chicago newspaper an account of a renewal of life after actual death. According to doctors and nurses of the St. Thomas Hospital of London, a woman had died while under the anesthetic. By massage of the heart and administration of oxygen pumped into the lungs, she was restored to life. Mention was also made of a man who was restored to life by heart massage at the Westminster Hospital of London in August, 1924, and who is still alive. I am interested in the cases mentioned and hope you can give me more definite information.

E. A., Kansas.

Answer.—What is usually meant by death is a condition in which the ordinary phenomena of life cease to manifest themselves. The person ceases breathing; no beat of the heart can be detected; no motion of any sort whatsoever, even in response to stimuli that in life result in prompt reflex motion. The complete death of individual cells does not at once follow, but comes on gradually after circulation and respiration have entirely ceased.

A few instances have been reported in which by massage of the heart and artificial respiration both the heart's action and breathing have been aroused again to activity, this being followed by complete restoration and resumption of vital activities.

Artificial respiration alone frequently resuscitates a person who is apparently dead, as, for example, after drowning or an electric shock. Sometimes such artificial respiration is maintained for two or three hours before any marked signs of life are manifested. The massage or compression of the heart seems in a few cases to have restored life which had apparently ceased, when artificial breathing alone would not suffice.